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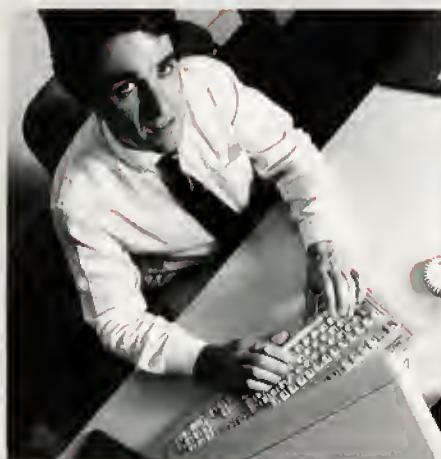
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3 copies of *Flipper* are waiting to be won!

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ABC Jul - Dec 89 - 29,688

Presenting

PROTEXT 5.0

Five years to the month after Protext version 1 was launched Arnor are pleased to present version 5, an enormous leap forward in both ease of use and performance.

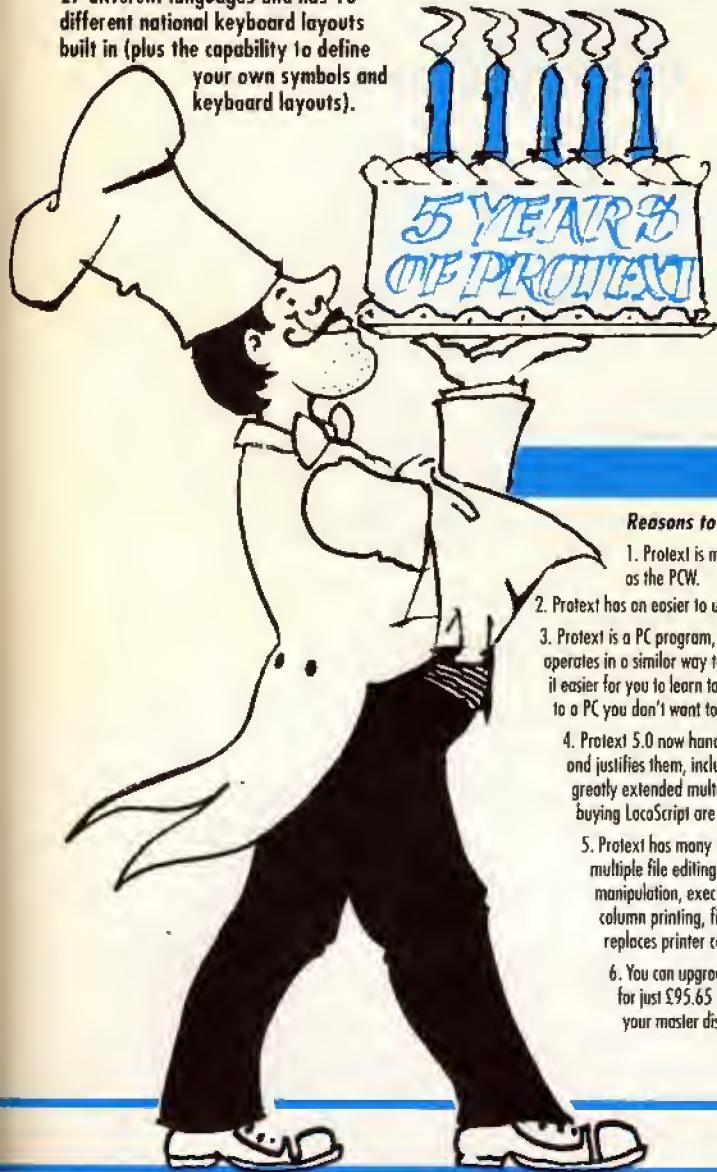
Protext 5.0 introduces a completely integrated system of pull down menus and dialogue boxes. The menus are among the many operations that may now be carried out with either the mouse or the keyboard. Protext really does give you the best of both worlds.

Protext 5.0 handles printer fonts flexibly and accurately. You can make full use of any number of proportional printer fonts, mix them freely within any line, centre them in headers, use automatically formatted footnotes. And Protext correctly formats your text as you type it, no matter how many font changes you use, showing you line and page breaks exactly as they will be printed.

Protext 5.0 is still the fastest word processor around. Even though we have made all these major improvements we have taken great care to ensure that text editing is as fast as ever. The menus work smoothly and quickly even with high resolution displays. But of course, you can use Protext's efficient set of commands and keys just as before and 5.0 remains compatible with all earlier versions from 1.0 onwards.

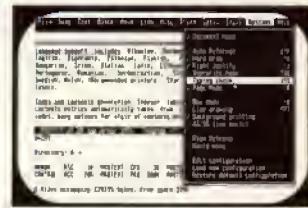
Protext 5.0 is a worthy successor to version 4, which was described as "the best word processor at any price", "the best text processor on the Amiga" and "the most powerful word processor on the Atari ST" (AUI, ST/Amiga Format, ST User).

Protext 5.0 heralds a new era of multi-lingual European software, in time for 1992 and the opening up of Eastern Europe. Protext may be used in at least 27 different languages and has 10 different national keyboard layouts built in (plus the capability to define your own symbols and keyboard layouts).



The Features

► **New fast & easy to use pull down menu system** with dialogue boxes and alerts; file selector; mouse dragging to set blocks. Menus complement existing commands and keyboard shortcuts, do not replace them. Menus may be used with mouse or keyboard. Amiga version follows Intuition guidelines.



► **Enhanced printing capabilities** supports multiple proportional fonts; mixing of different font sizes on the same line; proportional formatting whilst editing; side margin, headers and footers independent of main text font. Tabs, decimal tabs and centre tabs. Extensive range of printer drivers supplied.

► **Multiple file editing** - up to 36 files may be open; split screen editing.

► **Graphics mode support** on PC allows use in virtually any text or graphics mode including 132 column or 75 line VGA modes; user defined characters and on-screen bold, italics and underlining now on all versions; use of 14 different accents on any character.

► **Language support includes** Albanian, Basque, Czech, Danish, Dutch, English, Esperanto, Estonian, Flemish, Finnish, French, German, Hungarian, Irish, Italian, Latin, Lithuanian, Norwegian, Polish, Portuguese, Rumanian, Serbo-Croatian, Slovak, Spanish, Slovene, Swedish, Welsh. (Recommended printers: Star LC24, HP Laserjet II or later).

► **Index and contents generation**. Indexer takes marked words or phrases; contents entries automatically taken from titles wrapped in control codes; many options for style of contents output.

► **Spelling checker** features completely new 120,000 word Collins dictionary with very fast phonetic lookup. Anagrams and find word pattern. Foreign language dictionaries (German, Swedish available now, others to follow).

► **Many other enhancements** including multi-line footnotes and endnotes; automatic timed save; add column or row of figures; indent tabs; find word at cursor; 40 column mode support; sentence operations; inter-paragraph space; much improved expression evaluator; self incrementing variables; Roman numerals; newspaper-style column printing; file sorting utility with special options for names and addresses; revised manual plus new tutorial guide.

► **And don't forget Protext still includes** background printing; box manipulation; macro recording; exec files; headers and footers; find and replace; mail merging; undelete; file conversion utility; configuration program; auto reformatting; on screen help; time and date; typewriter mode; line drawing; disc utilities.

LocoScript PC or Protext?

Reasons to buy Protext 5.0

1. Protext is much faster. Yes, on the PC as well as the PCW.
2. Protext has an easier to use menu system.
3. Protext is a PC program, not an imitation of a PCW program. It operates in a similar way to most other PC programs. This will make it easier for you to learn to use new PC software. If you are upgrading to a PC you don't want to be stuck in the LocoScript rut.
4. Protext 5.0 now handles mixing of any different printing fonts and justifies them, including proportionally. Protext now has greatly extended multi-lingual features. These reasons for buying LocoScript are gone!
5. Protext has many features that LocoScript PC omits, including multiple file editing, index and contents, footnotes, box manipulation, exec files, a larger spell dictionary, newspaper column printing, file sorting program, automatically replaces printer codes.
6. You can upgrade from either PCW Protext or LocoScript for just £95.65 + VAT. Simply send us your master disc with your order.

Reasons to buy LocoScript PC

1. It works like LocoScript PCW. A short term advantage at best. Even so, the PC keyboard does not have all the special keys so the key combinations used on LocoScript PC are somewhat unusual. Protext was designed originally for a PC type keyboard. You will surely want to use other software on your PC, so thinking ahead it must be better to use a more standard word processor.
2. You need to write in Greek, Cyrillic or Latvian.
3. Er,
4. That's it.

Prices

All prices fully inclusive. Send us master PCW Protext or LocoScript disc to save £40 off the full price of Protext 5.0.

Protext 5.0 PC £110

Protext 5.0 ST £110 (requires 1Mb)

Protext 5.0 Amiga £110 (requires 1Mb)

Protext 2.2 PCW £49.90 (including Ainsley book)





The truly dedicated readers among you will undoubtedly have noticed something rather special about this month's issue number. This, our 48th issue, means that we are proud to be celebrating our fourth birthday in your company. But because a magazine is only ever as good as the product about which it writes, we owe our success, in part, to the continually branching talents of the stalwart and trusted PCW.

Look at this month, for example: our birthday issue coincides with the release of two major products for the PCW market. First, there is Creative Technology's new handscanner,

Proscan, the most important hardware release this year. Proscan ensures the PCW as a DTP force to be reckoned with, and brings, to the home user, the opportunity of producing polished, professional images to compete admirably with the work of rival scanners in the PC market.

The second is Software Imperative's Foreword - a new ideas/word pre-processor, which will prove invaluable in document planning for those of you who regularly produce serious written work on your PCW.

With the continued release of products such as these, there is an exciting future for the PCW. We're looking forward to the next four years. We hope you are too.

It's the Business!

Never a season seems to go by without one computer industry show or another. This time, it is the turn of the Business Computing '90 Exhibition at Earls Court, from the 25th to the 28th September. So, what, or who is in it for PCW owners? Exhibition organisers Montbuild have been hard at work trying to organise a PCW village, with the appropriate representation from all the people who matter.

"The aim behind having a PCW village is that the profile of the machine can be raised" explained Chris Down of Montbuild. "This way, anyone with a small business who attends the show can see for themselves the various applications of the PCW, and think about how the machine could help them and their business. Inviting the major figures in the PCW industry to group together in one, specific venue ensures that the machine, and the companies there, are given maximum exposure."

Indeed, so keen are Montbuild to attract what they call 'the decision makers' to the exhibition, that

they have spent nearly half a million pounds on promoting it. "It has been a very expensive publicity campaign" explained Chris. In addition, the organisers are planning a national newspaper 'coupon' ticket drop on the run up to the show. This means that visitors will be entitled to free admission, avoiding the £4 entrance fee on the day.

"What matters to us is that as many decision makers as possible are there at the show. It's good for the exhibitors, because they get exposure to new clients, it's good for the visitors because they get a chance to look at the best in computer technology for their businesses. It also raises the profile of the exhibition itself."

Creative Technology are just one of the many companies exhibiting who have taken a stand in the PCW village. They will have their new Proscan handscanner on display (see pages 10 and 11 for our exclusive review), together with

the PC version of Proscan, currently nearing completion.

Other companies rumoured to be in the village are Locomotive Software, SCA Systems, Cornix, Thurston Techniques and Margin Maker. Amstrad themselves will be exhibiting in the main exhibition hall, showing the full PCW range.

8000 Plus should be there as well, exhibiting in the main hall along with some of our sister publications. So, if you fancy coming along to meet the team, you will find us on the Future Publishing stand.

Business Computing '90 runs from 25th-28th September at Earl's Court, London.

BUSINESS COMPUTING '90

Open for business from the 25th-28th September - with a PCW village too, if all goes according to plan

Spare ribbons

Aladdink, pioneers of mail order ribbon re-inking kits, have just completed a new product, set fair to save the ribbons - and the pockets - of PCW9512 owners everywhere. The new product is a do-it-yourself multistrike replacement kit, which will refurbish carbon film ribbon cassettes at a fraction of the cost of a new one.

Said Aladdink's Nick Godwin, "The rate of use for carbon film cassettes on the 9512 can be quite alarming, so constant replacement costs the user a lot in the long run. You can get hold of cheaper cassettes from cut price shops, but they cannot always be relied upon."

The new DIY multistrike replacement kit comprises two special 'ready to go' cassettes, four replacement spools of ribbon, and complete instructions. The cassettes

themselves have been specially selected from the wide range available, so that they are ideal for DIY replacement. "All that the end user need do is add a little time, and enlist the help of a sharp knife" Nick told us. "Effectively, the cost of full length ribbons is reduced to well under £2 each, and the quality of them is identical to a brand new one. This is not always the case with fabric re-inks".

The price for the kit is £10.99, and replacement spools are available at £1.50 each plus 99p per order. If you would prefer Aladdink to refurbish your ribbons themselves, they will do so if you send them your used cassette, together with £2 plus 99p per order.

Aladdink can be contacted at Eyemouth, Berwickshire, TD14 5AP, telephone (08907) 50965.

Keep it in the family

It's nice to see a large, multi-national company maintaining the memory of its humble beginnings. There is always something reassuring about a true family business as well. So, the next time you telephone Amstrad's peripherals or hardware departments, you will be pleased to hear the voices of two of Amstrad's newest recruits - Daniel and Simon Sugar, sons to Alan.

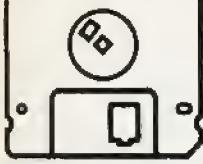
Bombs away!

F16 Combat Pilot, the flight simulator game from Digital Integration, will be available for the PCW in mid September, priced £24.99. Budding aviators should phone 0276 684959 for further details.

by Sophie Lankenau

NEWS

ADVANTAGE



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SLIDER

A unique computer version of the popular mechanical sliding squares puzzles. Pictures are divided up on a grid of squares, then mixed up; your task is to slide them around to re-assemble the pictures.

PCW-DRAUGHTS

A well-presented and challenging version of the popular board game, played against the computer. Large, clearly presented board making the most of the PCW's high resolution graphics.

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£5.95
Plenty of entertainment with these well-known classics:- Pacman, Space Invaders, Bomber, Maze Game, Hungry Snake, Pressup, Ping-Pong, Return to Arg, Game of Life, Bugs & Goll.

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COLOSSAL CAVE ADVENTURE

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The famous game which originated on main frame computers, with save and re-load. Plus BESTIARY, "A well-produced, novel adventure" - Bill Brock Adventurer's Guide.

PCW CHALLENGE

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Four entertaining cult games from Nemesis:- The Trial of Arnold Blackwood, Arnold Goes To Somewhere Else, The Wise and Fool of Arnold Blackwood, Brawn Free. "A good challenge lots of hints and tips and a good range of responses" - 8000 Plus

LOGO LOGIC

£5.95
Educational programs for DR-LOGO (supplied with your PCW) - Plan the shortest route with AIRLINER, play ANAGRAMS and HANGMAN, Use DRAWING with the LOGO turtle, write and print tunes with MUSIC printer and use the DISC LABEL PRINTER

FUN WITH GRAPHICS

£5.95
PCW-DRAW is a simple graphics drawing program - create, save, edit, print pictures. BIO-MORPH Start with a simple figure and after a few generations you have a set of complex and unique creatures. Plus GRAPHIC ROUTINES and README for 45 character PCW screen width.

WORD-SPREAD-BASES

WORD PROCESSOR

£5.95
A powerful WordStar-like editor which offers full screen editing, full block operations, windowing, automatic horizontal scroll (line length up to 255 characters), macro functions, word-wrap, formatting, pagination, find/replace, undelete and more.

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NUMBER CRUNCHER

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512K RAMPACK as approved by Locomotive software £99.00
PRINTER CABLE Centronics to 25-way D-type £10.95
NULL-MODEM CABLE for file transfer 25-way D-type £10.95

Hot cakes

Word from Locomotive has it that sales of LocoScript PC are booming. The company's top two distributors have this week reported the word processor as being their number one selling product.

Howard Fisher of Locomotive Software told us "I am delighted to say that Loco PC is doing exceptionally well. We have plans now to bundle it with the 'low end' Amstrads, so that you will be able to buy a PC1640 with Loco PC, for less than the cost of a PCW."

Mr Fisher was less than forth-



Locomotive's Howard Fisher has plenty to say about LocoPC - but no clues as to his major autumn release for the PCW

coming about the 'major new product launch' for the PCW which he first mentioned back in May of this year. 'We do have an important release for the machine, and, as we promised earlier this year, the Business Computing 90 Exhibition will be the time and the place for the announcement.'

Would the new product be on show at the exhibition in September? 'Perhaps. I really cannot say at the moment' replied Locomotive's ever verbose director. We're sure it will be worth the wait.

An old Cornix custom

Cornix Software have announced the introduction of a new scheme to 'customise' any of the titles from their business range (such as Simple Accounts II, Invoicing and Card-Index). This means that owners of any of Cornix products can return the software to the company for a spot of tailoring.

"The idea behind the scheme," explained Cornix's technical director Merrick Allsopp, "is that people can have, in our software, a system which is specifically tailored to their line of work. For a lot of people in business, it can be frustrating to spend time recognising the workings of a new program, and then beginning to apply that knowledge to a given situation."

All good things come at a cost, but Cornix are prepared to reduce prices if more than one person is interested in having the same product modified. "With two to three people in a similar situation, it makes sense to split the development costs between them. We have a user group, so if any members have

a particular application in mind, the word will get around, and the cost can come down."

It seems that the hot weather has brought out the generous streak in Cornix, for they are also running a special discount scheme on all five of their software titles. "We will give £50 worth of vouchers to anyone who phones us up and asks us" said Mr Allsopp. "Each voucher is for £10, and it is redeemable against any of our products." The voucher system lasts until October 31st.

When you contact Cornix, they will also send you an information pack containing details of their product range, and a list of retail outlets across the country where the vouchers can be redeemed.

So, if you want to get your hands on some well-written accounts and business software, which can also be modified to suit the needs of your particular business, telephone Cornix on (0234) 219969, or write to them at Tavistock House, 34/36 Bromham Road, Bedford MK40 2QD.

Get the inspiration

Inspiration Computer Services have recently been appointed as authorised Amstrad business dealers, and are celebrating the news with the launch of 'Inspiration PC/WP Complete Systems'. They will be selling Amstrad PC systems complete with everything needed to start word processing with LocoPC - even down to mains plugs for the hardware items. All systems come with 12 months' free maintenance.

This is just the latest in the string of 'Exclusive Offers' 'Special discounts' and other acts of spontaneous generosity precipitated by the launch of Loco PC - but it's good to see that at least one company can bear an old faithful in mind in the midst of the fever.

Inspiration are far from neglect-

ing the needs of the PCW owner. They are currently promoting their support services, which allow PCW users access to software and hardware not in their possession.

The company have a laser printing bureau, and will print laser copies of work produced using most word processing software. They are also able to print from MicroDesign2, Stop Press and The Desktop Publisher. Even if you do not possess any of the software, Inspiration can produce word processed documents for you, arrange page layout, present information using graphics, design forms - you name it, Inspiration will take over.

For quotations and details of their mail order service, contact Inspiration on (0744) 55543.

Doctor knows

Dave's Disc Doctor Service, the company which salvages data from corrupted discs, has branched out into writing software. At the moment, the company donates all of their profits to BACUP, the Cancer Research charity: they will be doing the same with the revenue from their new software release.



Disc Doctor Dave has worked miracles for many with his data recovery service. He now has a remedy of a different kind - which he's keeping under wraps

Details about the program have been rather sketchy purely because of the charity aspect. Said Dave, "It's a very simple idea, but the trouble is that if we give too many details away now, someone else might take the idea from us, and we would lose the opportunity to generate any funds for the charity."

Without revealing too much, we can safely say that the release will be of particular use to CP/M and LocoScript users, and will probably become the kind of utility which, once in your possession, you will wonder how you ever survived without. One more clue: the name of the product bears a close resemblance to the charity its sales will support, and, indeed, the function it performs. We'll keep you posted.

In the meantime, any enquiries concerning data recovery from corrupted discs should be directed to Dave Smith on 0892 835974.

by Sophie Lankenau

NEWS

Pure power

Loss of data can be irritating at the best of times, even if it is only a small document which goes missing. When you are sure that you have done everything possible to protect your work, there can be few things more frustrating than having your efforts destroyed by voltage disruptions from the mains supply to which your PCW is attached.

Help is now at hand in the form of a new power conditioner from Launchpad. The EPC3000 (these products have never been renowned for their catchy names) comprises a small unit measuring 230mm x 220mm x 105mm, with two double power sockets on the top.

It is designed to protect virtually

any micro or mini computer system from suffering at the hands of faults from mains supplies. It is attached as an intermediary between the mains and the power terminal on the back of the computer, and acts as a kind of filtering and cleaning



The EPC3000 Power conditioner protects computer systems from mains-related power disruptions

system for the power which flows between the two.

Said Steven Walker, one of Launchpad's directors, "The EPC3000 basically 'settles' power from the mains supply, so that the computer has a clean source of electricity from which to run. Disruptions in mains power can ruin both hardware and software, so having a power conditioner is a way of guarding against expensive equipment replacement, and the annoying loss of data which can occur as a result of high voltage spikes."

The EPC3000 will be on sale shortly. Further details can be obtained from Launchpad, telephone (0736) 50940



It works!

Every month the Club News desk receives many a letter from people all over the country wishing to set up, or join, a PCW user club in their area. Indeed, we encourage you to do so. Well, this month we are pleased to report that another two success stories have resulted from your enquiries.

A few months ago we had a letter from a lady in Stockton-on-Tees who appealed for people in the area to contact her if they were interested in establishing regular meetings. As a result, the first inaugural meeting of the Stockton group was held, and another is planned for the 10th September. If you would like more information, we will be pleased to pass on any written enquiries to Mrs Baker.

Following our mention of the Ground Floor User Group in Hebden Bridge, Yorkshire, another of our readers has been able to join a club.

However, not all our correspondents meet with such success. We had a letter from a very enthusiastic – if a little frustrated – gentleman from Bishopton, Scotland by the name of Iain Lang. It seems that every request he has sent to Club News to tell others that he wants to set up a club has fallen on deaf ears, or shortsighted eyes. We do apologise, Mr Lang, and hereby encourage anyone in the

Bishopton area to contact

SCOTWEST.PCW (he even has a name for the group) immediately, on (0505) 863916. From the sound of his letter, Mr Lang knows what is what PCW-wise, and is also looking to learn more, so why not get in touch? If you prefer to write, the address is 19, Porton Place, Old Greenock Road, Bishopton, Scotland.

M25AGM!

The M25 User Group has just held its annual general meeting (how's that for organisation!), and Chairman Ken Ritchie has forwarded a list of programme events from now until Christmas. So, if you are in the group's catchment area, and would like to know more about Sage Retrieve, Stop Press, Money Manager, LocoScript 2 (Templates) then hurry up and join the group – there are presentations on all of these in the next three months! Write to The Club Secretary, 58 Islip Gardens, Northolt, Middx UB5 5BY for details on how to join.

Summer sale

The CP/M & MSDOS User's Group has organised a second-hand computer sale, following the success of a similar event held by them last year. The sale will take place on Saturday 15th September at the Spring Lodge Community Centre, Witham,

Essex, and sounds like the perfect opportunity to pick up good quality hardware and software at reduced prices.

If you have anything to sell, then a trip to the event could also be worthwhile. Stands are available at a cost of £10 for the private vendor, and £20.00 for commercial enterprises. Any items not sold at the end of the day will be auctioned. But hurry! The stands are being allocated on a strict first come, first served basis. You do not need to be a member of the group either to have a stand, or to attend the sale.

In addition to the prospect of finding a bargain, you will also be able to meet club members, and even join the group yourself. Committee member Roger Stangroom informs us that the club's disc copying service will also be in operation at the sale. For more details, write to The CPM & MSDOS User's Group, 11, Barwell Way, Witham, Essex CM8 2TY.

HAGette

The Hereford Amstrad User Group has formed a splinter group to cater for the needs of those members who also deal with IBM and compatible machines. HAG IBM held its first meeting last month, when a demonstration of LocoScript PC was given. As so many programs, such as LocoScript, have versions on both PCs and PCWs, the splinter group will be meeting up with its parent on social occasions to discuss areas of common ground.

If you are in the Hereford area, and are interested in joining HAG or HAG IBM, phone (0432) 267123 for more details.

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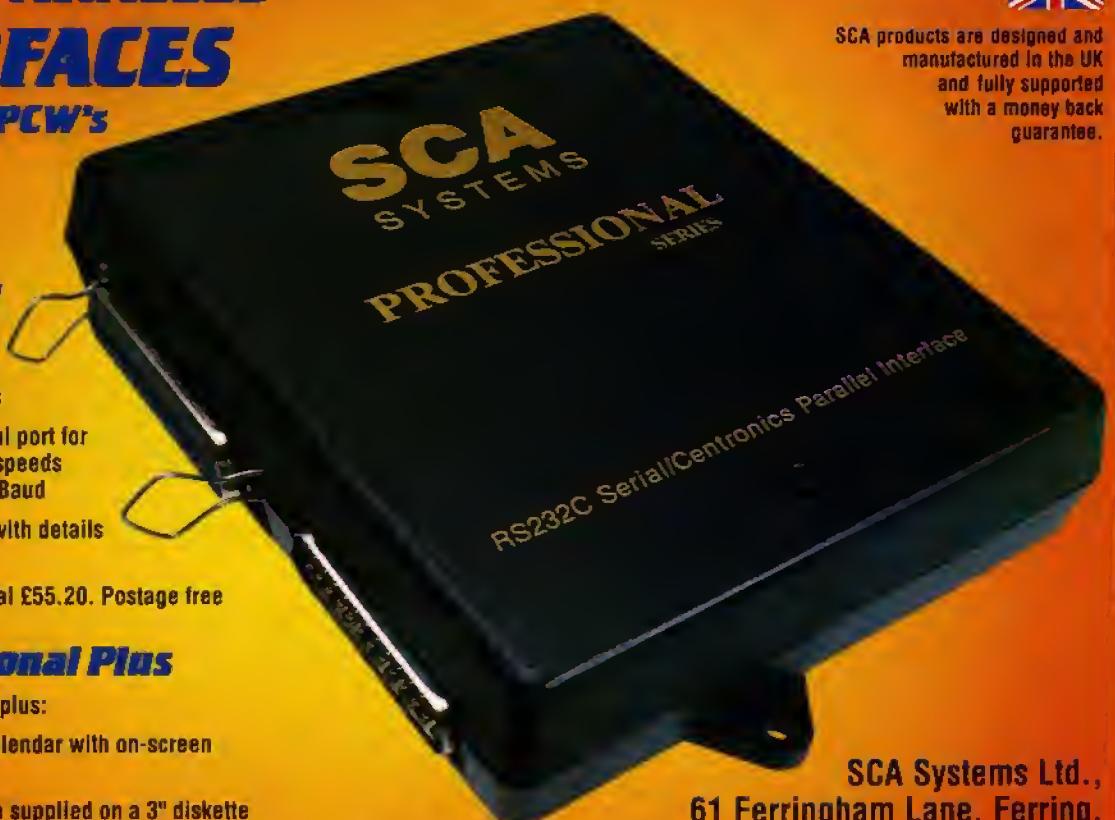
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Scans Down Winner

In a special 8000 Plus exclusive, Tim Smith transforms his PCW into a desktop publishing tool to be reckoned with as he puts the new handscanner from Creative Technology through its triumphant paces

Interface functions

The interface which comes with ProScan was developed by SCA Systems – the people who brought you the RamPac. Its function is to read the information from a scan head into the PCW and its software. The most technical widget it has is a RAM (Random Access Memory) buffer which allows the data from the head to be fed into the PCW at a rate which both can manage.

Flipping flip!

Although you will need Flipper 2 Plus in order to flip between ProScan and my other piece of software, once you have this ability the world is your oyster. Flipping between ProScan and Micro Design II means that you can scan in a picture, save it as an MDA (Micro Design Area) file and with the press of [SHIFT] + [EXTRA] + [ENT], you can load it straight into a Micro Design page without needing to re-boot (start up the PCW again).

ProScan

£179 • Creative Technology
0889 567160

Without wishing to bias your reading of this review too much, and without it sounding too much like an over-the-top rave, Creative Technology have triumphed with ProScan. First, they amazed all the critics with Micro Design, a desktop publishing system which went faster than anyone thought possible. Now they have confounded the nay-sayers with a handscanning device which sets the PCW up as a serious desktop publishing tool.

ProScan is a handscanning device. The package comprises an interface – a small white box which plugs onto the expansion card that juts out of the back of the PCW – the scan head itself – this is the piece of equipment which you hold and which turns pictures into graphic images for use in Micro Design – and the software which drives the whole operation.

These are the basics. Before we get into the bulk of this review, which will be unashamedly positive, we will mention the very few negative points about ProScan. The reason for this is to get them out of the way quickly so that we can get on with what's good about it. This review is based on a pre-release version of ProScan.

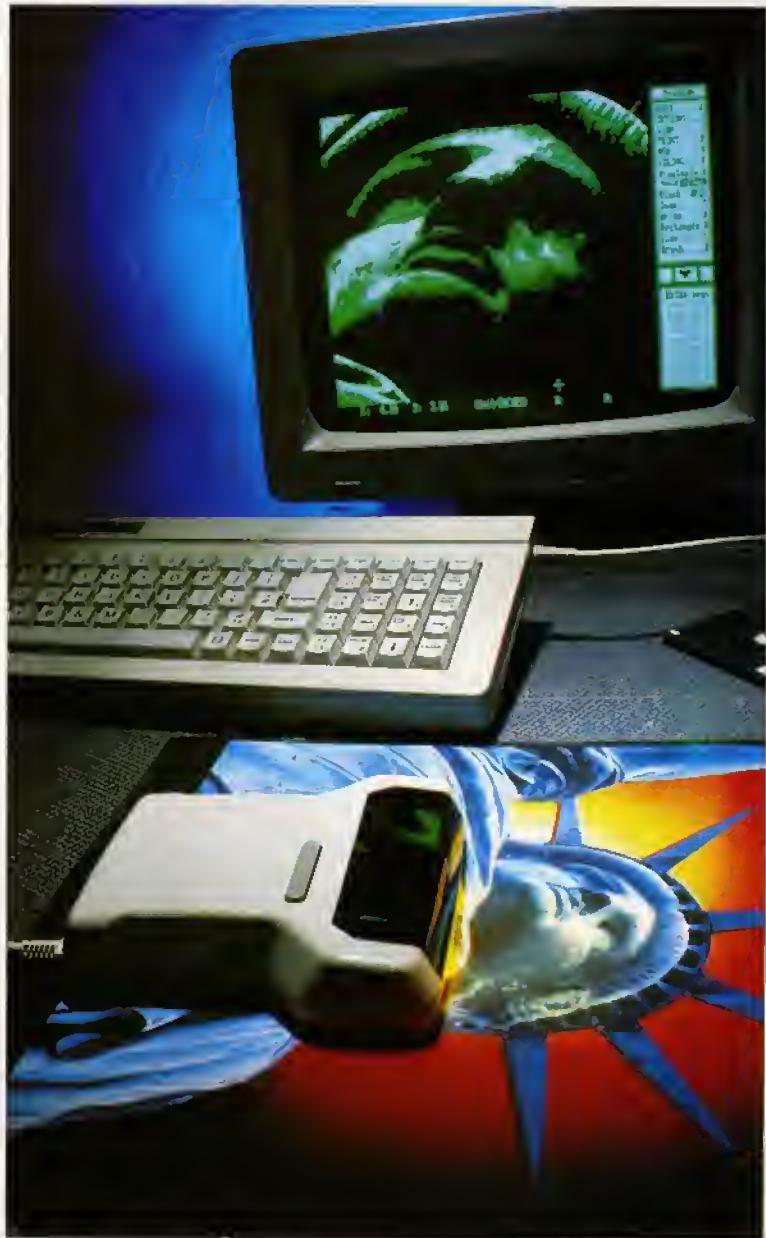
Firstly, the buttons on the side of the scan head might be a wee bit small for many of our readers. Secondly, you will need to either have Flipper 2 Plus or upgrade to it if you wish to use them together.

Right, that's the negative points out of the way. Now onto the review in full.

Three in one

As we have mentioned, ProScan is a three part project: interface, scan head and software. The interface, from SCA Systems, comes with a through connector which will allow you to mount any of the other interfaces which you own, such as the SCA RamPac or RS232 serial/Centronics parallel interface, piggy-back style without losing any of their capabilities. This is handy if you wish to make use of the Kempston or AMX mice, both of which require their own interfaces. Both of these mice are also compatible with ProScan and Micro Design.

Once you have connected the interface to the back of your PCW (the man-



Get a load of that! Creative Technology's handscanner, the major hardware release of the year, transforms your images into something you can be really proud of. And it couldn't be easier to use ...

ual thankfully takes you through this process in detail, warning you to switch off and unplug the PCW before you start – there is a danger of blowing the Z80 chip otherwise) you are ready to plug in the hand scanner itself. This is a simple operation. The scan head has one lead coming from it with a DIN socket at the end. This slots comfortably into the socket on the interface. Once this connection is made, and you have made a copy of the ProScan software (see box

for the installation procedure), you are ready for the off.

If you have created a self-starting ProScan disc, this means putting this in the A: drive and seeing the opening 'page' – which looks very similar to Micro Design II – appear on the screen. When this is cleared, you will be taken into the main working screen.

Again, this looks very much like Micro Design – a nice touch of consistency. Down the left hand side of the

Heads, you win ...

The scanning head itself is a simple device in looks and operation. It looks rather like a Star Trek space craft - a T-shape with smooth curves. On its underside there are three rollers which allow the device to move smoothly and safely over flat surfaces. There is also a clear plastic cover beneath which the actual scanning mechanism resides. This emits a green glow when it is scanning. Incidentally, the light isn't at all dangerous; in fact, in a fit of zealousness, this reviewer actually scanned his own face with the device! Not recommended, sane practice, however.

On the right hand side at the top of the scanner is a pinwheel which is used to control the brightness of the image as it appears on screen. This is not merely a cosmetic function as it also controls the brightness and contrast of the saved file. On this side of the scanner, there is also a four-way slide switch (one of those which is just a tad too small). You need to experiment with this in order to use it properly. Its role in life is to control the quality and manner in which the image is scanned. The four settings on this

control basically allow you to get the grey tones and the texture of the image (the dither and stipple) to your liking. The documentation is rather vague on this point but then so is the documentation on many other of the hand scanners which this reviewer has looked at in his time - it's pretty much par for the course. It suffices to say that now, as with anything else, experimentation is no bad thing.

On the left hand side of the scanner is one, three-way slide switch which controls the dots per inch (dpi) rating at which the picture is scanned. There are, logically as it's a three-way switch, three ratings of 200, 300 and 400 dpi although the switch is labelled H, M and L. In practical terms, the dots per inch rating basically corresponds to the size of the image scanned. As a very rough example, 400 dpi would make a quarter of an A4 page fill the working area on the ProScan screen. After a few hours' experimenting



with different images - line drawings require one setting, colour pictures another, and so on - you will be able to create a working ProScan log (a list of image types and switch settings) which will serve you well in the future.

Overall, the scan head itself is a straightforward piece of 'kit' which holds a great many options to provide a wide variety of image repro-

duction. It wouldn't surprise us to hear of a 'sub-industry' setting up (in the same way as extra fonts and clip art are available) to provide combinations of settings for the best results. Finally, on top of the scanner is a flat grey switch which actually puts the scan process into action. Click on this once and a red light appears on the top right of the scanner to show that you are ready to scan. Click again and the scanner goes into standby mode. If you leave the scanner switched on without moving it for more than a minute, it automatically switches itself off.

screen, you have a set of menus. These can be accessed by clicking on a mouse or by use of the keyboard. The options are as follows.

QUIT: Simple enough; this one gets you out of ProScan and back to the CP/M prompt.

OPTIONS: This one brings you into the set-up menu where you can define printer and mouse types.

SCAN: This option brings you into the scan screen itself. This takes over your PCW's screen leaving a thin bar at the top with a message telling you to press [CAN] to restart the scan or any other key to abort. All you have to do is hold the hand scanner over the required picture and move it down. As you do this, the image appears on the scan screen.

You can alter contrast and dipping (or stippling and dithering) effects as you go. Once the scan has reached the end of the PCW's page (this can be over the length of the screen itself) you are automatically brought back to the main screen. By the way, when making the scan, if you go too fast or at the wrong angle, the PCW clicks at you (just before it happens) to warn you that the image will be adversely affected.

PRINT: Again, it's simple enough. Once you have set your printer up in the options menu, the PRINT option allows you to set paper type (single or continuous), margin sizes, number of copies and so on. Hit [ENTER] and off you print.

NEW: This clears the working screen and wipes any images from memory.

FILING: This provides you with facilities to load and save MDA and font files. Saved files can be loaded in Micro Design for more detailed work.

VIEWSCALE: This is combined with PAGE - for the full editing screen in the

same way as Micro Design - or DETAIL. The DETAIL page opens up further options of ZOOM for pixel fine editing of images. WRITE allows you to add text (using any Micro Design font) to images, and BRUSH gives spray can and brush effects for smartening up images.

BLOCK ... UNIT: This allows you to define areas for copying, reversing or erasing.

RECTANGLE: Obviously enough you can create rectangles for borders to images or text boxes.

LINE: Lets you draw lines ...

Scan-dal!

There you have it. Actually scanning an image with ProScan could not be easier. Find your picture, which could be anything from a postage stamp to a coffee table art book (although you would

really need to scan anything above A4 in two chunks and then join them).

An interesting point about this is that you do not have to rush off and photocopy shiny or coloured images in order to capture them properly (as, indeed, you can see from our pictures). To quote a cliché, in tests we managed to scan through a clear Perspex sheet and still get a clear image. Once you have captured the image, you can either tidy it up with the software's built-in brush, zoom and write functions or you can export them to Micro Design.

In conclusion, Creative Technology have produced a cheap but not tacky scanning package. Images captured with ProScan will add to any news letter, poster or desktop publishing project. The PCW and the PCW owner are on to a winner.

Excellent value, excellent product. ●

ProScan

Pluses

- ▲ Excellent quality scans
- ▲ Easy to use
- ▲ Cheap

Minuses

- ▼ Buttons a little small

Ease of use 5/5

Documentation 5/5

Features 5/5

Lasting interest 5/5

8000 Plus

Value Verdict 20/20

Setting up shop

Creative Technology have prepared an installation program for ProScan. This comes in the form of a program called PSMAKE.COM. PSMAKE runs from the A> prompt and allows you to tailor the main program to your needs.

After typing PSMAKE at the prompt, you are taken through a number of Yes/No questions. Although the pre-release copy of ProScan we have for review does not have a fully working copy of PSMAKE, the general principles are as follows. The ProScan software is copied onto a disc - formatted or unformatted - just make sure that you have a blank disc to hand. You are asked whether you want a self-starting ProScan disc (for the more technical among you this is 'auto-booting!'). If you answer yes, you are prompted to put your C/PM disc into the drive. On that disc you will have a file called some-

thing like J14CPM3.EMS (the numbers might differ depending on the version, but the .EMS will always be the same). This is the file which actually starts your PCW up. This file is then copied to your new ProScan disc.

You are then asked whether you have a mouse and which one (the Kempston or the AMX? Come on, SCA and Creative, how about a mouse for the PCW?). You are asked how fast you want the mouse cursor to move - then which printer you have? The PCW's own 9-pin, a 24 pin printer, a laser printer or even a Deskjet printer? Various other questions are asked and what you end up with is a working copy of ProScan and a fully functional Options file. In effect, then, you have everything you could want (save for a laser printer) to get going with ProScan.

Fast Foreword

Making the grade

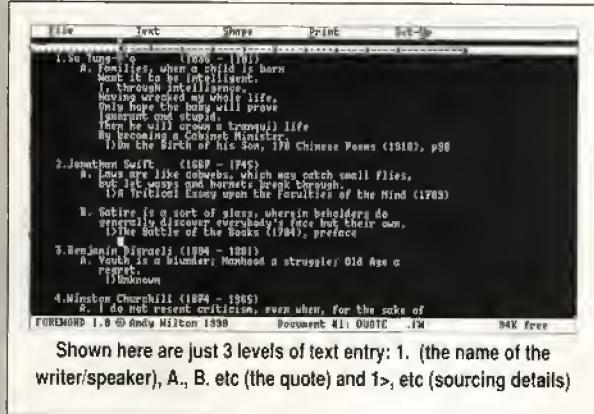
Foreword will only work with your LocoScript 2 disc if it is version 2.16 or later. As for all you die-hard Loco 1 users, the time may have come to make that upgrade!

Can your PCW really help you think more clearly and turn you into a better writer? We look at a brand new ideas' processor which promises to drastically improve the working habits of writers everywhere

Foreword

£44.95 • Software Imperative
0225 425315

Software Imperative, the company behind Flipper, have just released a new program which is guaranteed, they say,



Shown here are just 3 levels of text entry: 1. (the name of the writer/speaker), A., B. etc (the quote) and 1>, etc (sourcing details)

Tech spec

When using Foreword in conjunction with a secondary foreground program, 80k of the M drive is allocated to Foreword itself, while the program's text area and scratchpad (temporary working area) occupy at least 16k each. At its most 'scrunched' that's a total of 112k. Realistically speaking, it might be more useful to award 2 blocks (ie, 32k) to the text area (enough for very long documents). You can alter the block allocations for text and scratch areas easily through the Set defaults option of the Set-up menu.

to improve the lot of PCW-reliant authors and writers everywhere. After a couple of days spent here in the office putting Foreword – for such is its name – through its paces, we can safely say that this guarantee is no idle boast. The program is fast, polished, accurate – and does exactly what it's supposed to do. So what sort of PCW user would be

interested in Foreword?

Call it what you will – ideas' processor, word pre-processor or outliner – Foreword allows you, as a writer, to bridge the gap between the embryonic structure of a document and the final product. This could be a novel, a report, an essay – even a magazine or newspaper article – anything requiring a modicum of planning and structuring to become a lucid, well thought-out piece with a logical progression of ideas.

In other words, using Foreword you are able to throw your ideas and thoughts, as they occur to you, straight onto the screen. Then the program allows you to impose some sort of structure on them; you simply shuffle and resequence headings, sentences, whole chunks of text – even entire chapters – at the touch of a few buttons. You never lose sight of that all-important overview of the document you're working on because, at any stage of its creation, you can always see the wood for the trees. How so?

Branching out

Well, when you first start using Foreword it feels very much like a conventional word processing package. You type in your text and the program instantly reformats it as you go. The

program's ability to structure text stems from the vaguely hierarchical way in which it treats the units, sub units and sub sub units of what you type in. These units can be words, sentences – even whole paragraphs or chapters. Let's look at a specific example.

Suppose you're compiling a small anthology of history's most memorable quotations. You must first decide how you want to arrange them: chronologically, alphabetically (according to the surname of the writer or speaker) or thematically. For the purpose of this example, we'll go for the first.

The first level of text entry into Foreword, therefore, is the name of each writer/speaker followed by their birth and death dates.

Under each name, we will be entering up to three or four individual quotations. These will constitute Foreword's second level of text entry and, as such, will be indented.

Our third and, for the time being, final level of entry will consist of 'sourcing' details for each quotation. That is, when and where the comment occurred and to whom it was addressed. This level of text entry is further indented in its turn.

Happy families

Rather like a tree and its branches, each unit (the writer/speaker) consists of a number of sub-units (the quotations) and sub sub units (the sourcing details). Or, if you prefer to use the terminology offered by the Foreword manual, we could say that the sub sub unit is a child of the sub unit and the sub unit is the child of the unit. Similarly, the unit is the parent of the sub unit and the sub unit is the parent of the sub sub unit. If you want to continue with this analogy, you can say that sub units of the same unit are siblings as are sub sub units belonging to the same sub unit. Phew!

One of the most important points to note at this stage is that the program imposes no limitations whatsoever on the length of the text contained within any of these units. It can be a few words, a single line or whole paragraphs. In other words, Foreword does not force you to use it as some kind of writers' sketch pad. You can flesh out your documents in full without this having any adverse effects on the workings

Press for action

Foreword makes use of a series of drop-down menus. While the program is in use, you will see a number of options featured across the status line at the top of the screen. These menus run as follows: File, Text, Shape, Print, and, finally, Set-Up. You will notice that, apart from Set-Up, the first letter of each menu-title is underlined.

This serves as a reminder to you that all you have to do in order to call up one of the menus is to press the [ALT] key together with the underlined letter. In other words, [ALT]/[F], for example, will pull down the File menu.

Once a particular menu has been opened, a number of options will quickly make themselves apparent. In the beginning, you will

probably find it easier to make your selections using the up and down cursor keys. The highlight bar moves with them. But it will probably only be a question of time before you begin to make use of the shortcut menu options worked into the program. These consist of a sequence of keypresses and avoid your having to 'pull down' and consult in detail the relevant menus.

For example, if you want to do a word count from your editing screen, you can just press [ALT]/[T] and [W] to reach the appropriate menu. Similarly, to reach the print options menu, just press [ALT]/[P] and [O]. The letters to press are indicated in the menus by an underline. Foreword is configured to make full use of the PCW keyboard.

of the program.

By means of very powerful Hide and Show functions, you can suppress sub-units and indeed sub-sub-units of text so that you are left solely with a series of unit 'indicators.' In other words, you might know that Winston Churchill is included in the anthology (you can see his name as a unit heading) but needn't necessarily know exactly what he said! Effectively, you can 'collapse' and rebuild your on-screen document at the touch of a button, alternately suppressing and re-introducing secondary chunks of text wherever appropriate.

My word!

You can also move paragraphs around quickly and effectively by means of just another single keypress. There are no blocks to be defined first; all you have to do is make sure that the cursor is resting somewhere within the paragraph or subsection of text to be moved; you then 'pick it up' and position it accordingly with the help of the cursor keys. This applies whether the chunk of text in question is a single sentence or eighty sentences in length. The program will automatically renumber the text units.

Those of you who are used to writing documents in LocoScript will find one feature of Foreword a very welcome improvement on current practices: and that is its word count facility. You can choose whether to do a word count on the 'collapsed' (ie, you've chosen to 'hide' certain units and sub-units of text) or fully fleshed out version of your Foreword document.

After that, it's up to you whether you want to begin counting the words right from the beginning of the document or simply from the current cursor line. We were particularly impressed with the speed of these counts. They were both slick and accurate; no mess-

ing around here.

What Foreword does have in common with any other word processor package, however, is its Find and Exchange feature. Again, if some units of the document have been suppressed, you can choose whether you want to include 'all' of it in the Search or just those units which are 'visible'. Similarly, it's your call whether the search carried out is case sensitive or not. The same is true of the Exchange menu, but, again, you have one more choice to make: whether you prefer to type in the replacement string yourself or whether you would like the program to automatically insert it whenever it encounters the highlighted text.

It is worth noting, however, that Foreword has no multiple wildcard facility. In other words, if you are conducting a search on the word 'terraps', for example, and you can't remember how to spell it properly, you must still enter the correct number of letters in the search string even if you don't know what they are. Entering 'te????????' will locate each occurrence of that word along with each appearance in the text of a word like 'telephone' – anything, in fact, which conforms to that character composition.

Divided we fall

The other thing that we didn't like about Foreword's searches was the fact that word matches are ignored if they happen to straddle paragraph or unit boundaries. This means that if a word like 'vivisection' is split over two lines, no matter how you enter the word in the Find menu – 'vivisection', 'vivi section' or 'vivi-section' – the program won't be able to locate a match. Conceivably, there are circumstances in which this inability might prove a nuisance.

The manual supplied with Foreword, however, is nothing short of



The same information - but in 'collapsed' form. Only the main units are visible so that a document 'overview' is easily maintained



A typical Foreword drop-down menu complete with abbreviated underlines. They're quick, efficient and very polished indeed!

excellent. Rarely have we had the pleasure of consulting such a thorough, clear and well-written oracle.

On the whole, then, Foreword gave us an extremely convincing run for our money. All right, it won't provide a lasting software cure for the chronically disorganized or those of you with drawers full of rejection slips immediately to hand, but if you're in the business of producing lucid, well-constructed reports – for whatever purpose – you will find Foreword a powerful, versatile and highly professional tool.

Our verdict was unanimous: highly recommended. ●

Foreword

Pluses

- ▲ Easy to use
- ▲ Versatile Save options
- ▲ Printout facility
- ▲ Works with 'foreground' option

Ease of use	5/5
Documentation	5/5
Features	5/5
Performance	5/5

8000 Plus	5/5
Value Verdict	20/20

Two for the price of one!

Far from chugging along in splendid isolation, Foreword allows you the possibility of importing your fleshed out documents into a word processor for the finishing touches.

Let's take a brief look at the versatility of the Save menu. Apart from saving your work as a straightforward Foreword file (this option ensures that both the text and the shape of the text is kept) the program offers a choice of three different file formats: a hard ASCII file, a soft ASCII file and, finally, a WordStar file. These mean that your work can always be saved in a form that other programs can handle.

You will, more often than not, be using the soft ASCII option when importing text into other word processing packages. This is the way they save their ASCII files. The hard ASCII format is much more specialised; it inserts a carriage return at the end of every line whether it signals the end of a paragraph or not. This makes it a useful option to use if you need to display your file text under CP/M (using the TYPE com-

mand), for instance, but makes editing in a word processor a very laborious process. Word processors like WordStar and NewWord have their own very specialised ways of marking the ends of lines and so the last option is only for text that will be used with them.

It will come as no surprise to those hardened Flipper users among you to learn that Foreword can share the memory of your PCW with a second program – whether LocoScript 2 or CP/M-based. It remains out of sight until you need to use it; then you summon it to your screen using a special combination of keypresses – [SHIFT] [ALT] and [EXTRA]. When you've finished with Foreword, use the same keypresses to go back to what Foreword's creators term 'the foreground' – your LocoScript or CP/M program. Foreword will save your place in both environments whenever you make the switch.

Suppose you wanted to flow your Foreword file into a LocoScript 2 document,

You would, first of all, make sure that your 'foreground' – the Loco environment – was receptive to such a transfer. This would necessitate opening the receiving file under [E]dit or [C]reate mode. Then switch back to Foreword and select the Transfer to foreground option under the File menu. You are immediately presented with a choice of three different transfer speeds: high, medium and low.

The first works out at something like 200 words a minute, a not inconsiderable speed which LocoScript and Protext can both manage easily. Leave the default option of soft returns set, press [ENTER] a couple of times and away you go. The program pauses very briefly to read a chunk of text and then immediately switches to the foreground whereupon you can watch your Foreword document appear letter by letter word by word into your LocoScript file. It looks just as if an invisible typist were maniacally at work somewhere behind the scenes. Very impressive indeed.

THERE ARE SEVERAL DATABASES FOR THE PCW



But only one for LocoScript 2

LocoFile is the easy-to-use, pop-up database that works within LocoScript 2.

You can use it just like a card index; there's a separate card for each page of information. You can design the layout of the cards to suit your needs and you can change the number and order of the items in your cards at any time.

LocoFile is ideal for storing any type of information from membership records to your personal address book. You can then sort these cards in any order you wish – by name, by town, or by any item on the card.

When you're typing a letter, simply call up LocoFile and copy names and addresses straight into your document – you never need to type an address again!

And LocoFile can do a great deal more when you use it with LocoMail – the mail merge program. LocoMail lets you create standard letters merged with LocoFile information to produce mailshots, detailed reports and labels.

For more information on LocoFile or any of the LocoScript family, please complete the coupon

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LocoFile and the LocoScript family

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I have a PCW (please tick the correct box)

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8512

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Game for a Graph

You, and the artistic talents of Cracker, can make a picture worth a thousand figures. Karen Donaghay finds out how to say it with graphs

It is one of the all time clichés of the film world: the ultimate executive's office. It is not complete without leather couches, tasteful artwork and a panoramic view of the teaming metropolis below. On the wall, a large chart portrays the company profits for the last year. A close-up reveals a red, wavering line which, after a few indecisive ups and down, shoots dramatically skywards. This is intended to dispel any lingering doubts which we may harbour about this company's overwhelming wealth and importance.

The point is that a picture is worth a thousand words - or numbers, for that matter. There could be a cue in the film where the ultra-cool executive mutters a few lines about how company profits

have rocketed in the last few months, but why bother when the point can be made so much better graphically?

So what actually goes on behind the scenes? If this was a real company then someone, somewhere would be tapping lots of figures into a computer spreadsheet; these figures would then be translated into graphic form to show the overall profit or loss.

The Cracker spreadsheet can do just that. Not all spreadsheets have the ability to produce graphs from the figures which you supply, but the Cracker spreadsheet is one of them. Graphs are useful whenever you want to present numerical information quickly and clearly, without resorting to the use of realms of figures and

percentages. Basically, they do wonders for your presentation, and rarely fail to impress the bank manager.

A graph may give the impression of hours of preparation, but if you are using a spreadsheet already, it involves very little extra work to actually produce a graph. The main thing is to master the basic concepts. It does seem complicated at first, so this tutorial gives you the step by step approach.

It is possible to produce many types of graphs with Cracker: bar graphs, pie charts, line graphs and area charts. Here we cover the process of setting up two of the most basic and useful types with which you are probably already quite familiar: bar charts and line graphs. ●

The Line Graph

A simple line graph is the best way to start. Obviously, you need the figures to work from, so we are first going to set up a very basic spreadsheet, to calculate the profit accrued by our imaginary company each month.

To create the columns and rows, start with the **Insert** command. Type in [I] [C] 10 [RETURN] [T] [L] [RETURN] to set up a left aligned text column, 10 characters wide. Then [I] 20 [L] [RETURN] [RETURN] can be typed in to insert 20 lines.

The next three columns are all for numbers so type in [I] [C] 10 [E] [RETURN] 0 [F] [RETURN]. This sequence creates a column of zero financial format and 10 characters wide, at the right hand side of the existing column. This sequence should be typed in three times more to create four columns of identical format.

The column formats are set so that most of the words and numbers can be entered directly. To do this, first type in a fullstop, then copy in the actual word, number or expression from our example. To enter the monthly headings in what has already been set as a numerical column, the format for that particular cell must be changed to text. For example, to enter the word "Jan" in cell B3, type in [F]format [T]ext [R]ight - then the word itself.

You should end up with a spreadsheet which looks very similar to the one in our example. We are now going

to create a graph from the profit figures. To do this Cracker needs certain information: what the headings and labels are going to be, where the numbers are found and what type of graph we want to produce. This information can be put into any blank space in the spreadsheet. It must be entered into a cell with a numerical format, such as "General".

X marks the spot

In our example the vertical axis (or Y axis) represents pounds and the horizontal axis (or X axis) represents time. The line itself is labelled "Profit". Cracker has standard commands for producing a graph. These can be put into any empty space in the spreadsheet, and we shall use cells A9 to A15 for this purpose.

The command which lets Cracker know what type of graph to produce is "typeplot". There are fourteen types of graph available, and these are referred to by number. A line graph is type 3, so move to cell A10, change the format to General by typing in [F]format [G]eneral, then enter the number 3.

Now move to cell A9 and change the format to General in the same way. This time enter the command typeplot(A10) and press [RETURN]. Typeplot will look at the contents of cell A10 to find the type of graph required, which, in this case, is type 3.

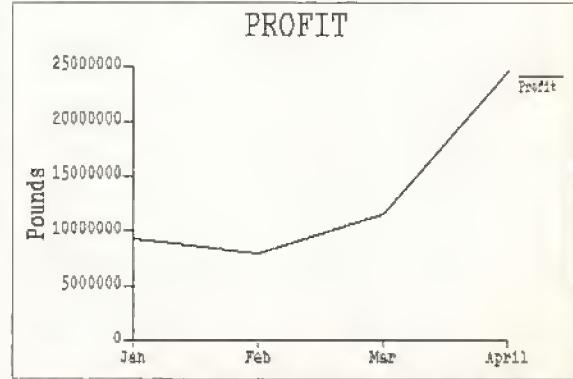
When you type these commands for yourself you will soon notice that a number is displayed, rather than the ➤

What to type in

A	B	C	D	E
1 PROFIT				
2 Pounds				
3	Jan	Feb	Mar	April
4 Costs	567831	456302	789231	1056456
5 Sales	9854321	8459282	1234573	2567856
6				
7 Profit	B5-B4	C5-C4	D5-D4	E5-E4
8				
9 typeplot(A10)				
10 3				
11 maintitle(A1)				
12 ytitle(A2)				
13 xlabel(A7)				
14 yvalue(1,B7...E7)				
15 timelabel(B3..E3)				

Setting up the spreadsheet and graph is as easy as typing in these numbers and commands. Cracker 2 does the rest for you.

The graphic result



Once the figures have been transformed into this graph, it is difficult to miss the fact that profits are soaring.

How to use Cracker

actual text. They will work perfectly well without being displayed on the screen (although it is possible to display them by choosing the [X] option). The rest of the commands can be copied in from the diagram. In each case, you should change the format to General before you type in the command itself.

Maintitle(A1) defines the title of the graph as the contents of A1, which is, in our case, PROFIT. Ytitle(A2) describes the title which is printed alongside the vertical Y axis. Here we have "pounds" in cell A2 so this is what will be

printed. There is no title for the X axis in this example.

Yvalue(1,B7..E7) is the command which allows you to draw the line itself. There is only one line, so the first value is 1; the actual numbers are found in cells B7 to E7. Xlabel(A7) labels the line as profit. The last of the commands is Timelabel(B3..E3) which marks the months along the horizontal X axis.

Graphic display

Once all of the information has been entered, the graph itself can be printed

out, either on the screen or on the printer. Press [T]race and choose either [S] to show the graph on your screen or [P] to print it out. The graph should then automatically fill your screen. Make sure that you save your spreadsheet before you trace the graph out because if anything goes wrong you will be dumped unceremoniously back into CP/M. This is not a complete disaster since your file will be saved as Security.mem, but it is a hassle since you have to change the name of Security.mem in order to access it.

Typing in the spreadsheet

A	B	C	D
1 CASHFLOW			
2 pounds			
3			
4 OLD BALANCE	JULY	AUGUST	SEPTEMBER
5	90.00	B26	C26
6 INCOME			
7 Wages 1245.00	1245.00	1245.00	
8 Other 50.00	120.00	0.00	
9			
10 EXPENDITURE			
11 Mortgage	450.00	450.00	450.00
12 Housekeeping	400.00	200.00	400.00
13 Clothing	123.89	20.00	40.00
14 Electricity		62.00	
15 Gas		50.00	
16 Telephone	120.00		
17 Entertainment	80.00	150.00	60.00
18 Holiday		350.00	
19 Transport	47.50	30.00	47.50
20 Other 22.00	90.00	150.00	
21			
22 MONTHLY TOTAL			
23 INCOME SUM	(B7..B8)	SUM(C7..C8)	SUM(D7..D8)
24 EXPENSES	SUM(B11..B20)	SUM(C11..C20)	SUM(D11..D20)
25 MARGIN	B23-B24	C23-C24	D23-D24
26 BALANCE	B4+B25	C4+C25	D4+D25

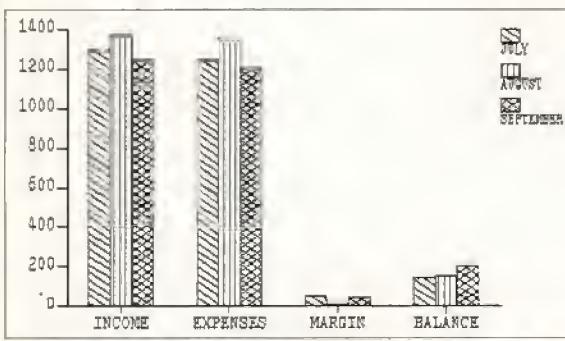
Last month we set up a household cashflow. Entering these numbers, headings and figures is all you need to do to sort out your financial situation.

Eight little commands

A
28 1
29 typeplot(A28)
30
31 ytitle(A30)
32 timelabel(A23..A26)
33 xlabel(B23..D3)
34 yvalue(1,B23..B26)
35 yvalue(2,C23..C26)
36 yvalue(3,D23..D26)

Once you have set up the spreadsheet shown above - these eight commands are all you need to create the graph. Cracker uses these commands to work out which figures, titles and labels are used in creating the graph.

The graph itself



The resulting graph is a testimony to the ease with which Cracker can make use of the figures.

The Bar Chart

A bar chart displays each value separately, instead of as a continuous line. Last month we showed you how to set up a household cashflow using Cracker, by typing in the information in the first diagram. We also mentioned that this information could be transformed into a bar chart. Here, as promised, are the steps needed to produce that chart.

First of all you need to load the original cashflow table. Simply load in the cashflow chart, by loading Cracker, and then typing in [C]opy [F]ilename followed by the name of the file.

If, by some quirk of fate, you managed to miss out on last month's tutorial, then the layout of the spreadsheet is shown in the first diagram. The process of entering in the figures and headings is very similar to the steps taken in the example overleaf.

Insert the correct number of lines and columns. Choose the text format for the first column and zero-financial format for the others. The column headings themselves cannot be entered using the default format so they must be redefined as text. The numbers and formulae can be entered using the default format, which simply means typing in a fullstop first. The text in the first column can also be entered in the default format. Again, to do this the fullstop is typed in first.

Now, having established a cashflow table, the next stage is to actually produce the graph. The commands which you need to type in are shown in the second diagram. Here they are put into the A column. You will need some more space so type in [I]nsert 8 [L]ines [RETURN] [E]nd [RETURN] to insert nine new lines at the bottom of your spreadsheet. Because the default setting for the A column is text, change the format of each cell to General before typing in the command. To do this, use the sequence [F] [G], followed by the command itself and [RETURN].

Command it!

The commands used here enable us to portray a fairly complicated scenario. The bar chart uses different patterns to distinguish between the months, and can also separate the figures into groups by labelling them.

So what commands do we have? The first, typeplot(A28) is to establish which type of graph is required. The cell A28 contains the value 1, so Cracker assumes that a bar chart (which is type 1) is wanted. Ytitle(A2) prints the word pound beside the y axis (the vertical axis).

Timelabel(A23..A26) takes the text in A23, A24, A25 and A26 and uses them to label the time scale, which is along the horizontal X axis. In this example, because the values are grouped together by function rather than by time, the name timelabel becomes slightly confusing.

It is important to remember the positioning of these labels, and concentrate on that when planning out your own graphs. The timelabels are always along the Xaxis. The xlabel command, however, is always used to label the line or bar itself. In this case the different patterned bars are to represent different months of the year, so the command is written as xlabel(B3..D3).

Now for the numbers themselves. There are three separate yvalue commands, one for each type of bar. The first set of yvalues refers to the month of June. They are linked to the timelabels so, since the timelabels go from A23 to A26, the yvalues for June go from B23 to B26. The yvalues for July and August follow the same pattern, except they are preceded by 2 (for the second type of bar) and 3 (for the third type of bar).

Again, the last part involves producing a graph either on paper or on the screen. Type in [T]race and choose either [S]creen or [P]rinter. Wait for a moment and the bar graph will appear.

Do It Yourself

A flick through the manual will reveal fourteen different types of graph. When setting up your own graph, choose the one which best suits your purpose, and then sit down in front of your spreadsheet and plan it.

What do you need in the way of titles and labels? Where are the figures going to come from? If your graph is closely and accurately related to your spreadsheet, then you should have no problems with the final product.

"One of the most important word processing events in a long time"

Rex Last, Popular Computing Weekly, 21 June Issue

"PCW users are going to be delighted with the product"

Steve Patient, PC Plus, August Issue

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"LocoScript PC is set to take the PC world by storm.

It's a super package... brimming with features"

James Clifford, Amstrad PCW Magazine, July Issue

"One of the most powerful multi language word processors in the world... the bargain of the century"

Guy Kewney, Personal Computer World, July Issue

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All Systems Go

Can your PCW really transform you into a successful entrepreneur?

Alec Rae takes a look at the new three-in-one business package from Digita International which aims to do just that

System 3

£49.95 • Digita International
0395 268893

There are few areas of endeavour where the PCW is more useful than in a small business. And there are few people with less time to learn the intricacies of a PCW than the person who is running a small business.

So, perhaps the major requirement of any PCW business software should be that it is easy to learn and simple to understand. Certainly the designers of System 3, Digita's attempt at the book-keeping market, had this in mind when they were developing the program. Whether it has worked as well as it could is debatable, but at least they tried.

Let's admit right away that, in general, there are few more boring software packages than accounts packages. There seems to be something in the effort of creating an accounts' program to make the software designer's imagination dry up.

And stock control is one of those ideas that sounds great until you have to do it. Probably the majority of small businesses still use the 'pile in the corner' stock control system and will need a pretty good push to change from that tried and tested set-up. So there certainly is a place in the market for an accounts package and stock control system that comes with an understandable manual.

The packages can be integrated — or to put it in layman's terms the value of your stock and the total invoice sales can automatically be dropped into the right place in the Cashflow Controller. The two work in isolation however.

The Cashflow Controller has a fair amount of in-built flexibility. You set it up to suit your accounting system. But the Invoicing/Stock Control module seems set up to suit a company buying and selling goods. As they are sold together, this seems a bit limiting.

Cashflow controller

Controller tries to capture the 'no man's land' between single and double entry book-keeping — a laudable aim. Its major advantage is that it gives you the chance to keep a check on the bank balance. Most single entry systems let you keep track of sales and purchases, credit

and cash. But they often stop short of the vital task of making sure you have enough money in the bank to cover the VAT cheque.

It also goes out of its way to give you a wealth of reports that also could prove invaluable to the small business man. It is all too easy, in the heat of the fray, to miss vital little details like the fact that your business is costing you more to run than it is making.

A 'year-to-date' summary listing a total of receipts, invoiced sales, credit purchases and payments will prove helpful as does the income/expenditure summary which allows you to keep track of debits and credits in all the accounts. And, of course, it keeps track of the dreaded VAT in a fairly painless manner (as painless as anything to do with VAT can be).

Luckily all the reports can be output either to screen or to the printer or you could quickly go out of business just on the cost of listing paper.

Upholding tradition

Sadly having made this brave attempt at being accessible, it still falls into the trap of wanting to still be a traditional accounts package.

The problem for software designers must always be how closely to tie in a



One major advantage of the Cashflow Controller is its ability to keep track of how much is in your bank account (or your four bank accounts if you're very rich) at any one time.

program with conventional accountancy practice. Most people who buy System 3 will presumably be upgrading from a manual system and some poor souls will, presumably, have struggled through the living hell of manual, double entry book-keeping.

It's therefore arguable whether it is worthwhile sticking to the traditional accountancy terms, as the Cashflow Controller does. On the other hand the program is not about double entry ➤

Where have all the discs gone?

System 3 can only be used on an 8512 or 9512. This is fair enough. It is a big program that comes on a 720k disc, which you cannot use on an 8256. However there is certainly not enough in the documentation to point this out to the unsuspecting 8256 user.

You have a simple installation program which sets you up with a startup disc (a separate A drive disc, in the case of the 8512.) This has a simple submit file which copies all the files from the program disc to the M drive and all the workings of the program are carried on in the speedier environment there. When you are finished you close the file and everything is saved to disc.

With the 9512 this is not too bad. The startup disc is also the program disc. When the program is loaded you replace it with a blank disc and the program creates the files needed to store the data. It appears that the program will not work if there is anything else in the M drive. It is a big program and needs the space. But it is

not beyond the capabilities of the average PCW owner to clear anything out of M: and save all the palaver of re-booting.

But it is on the 8512 where things really get strange. Once the program is loaded, you are instructed to take out the A drive disc and replace it with a data disc, a mere 173k of space compared with more than 700k for a B drive disc.

Both the stock control and cashflow control sections need a separate disc (it formats the whole disc for data storage) — and yet you still have only a maximum of 346k of storage space.

This means that to use the program successfully you need three or four discs and a lot of disc changing. There presumably must be a reason why the creators of this program didn't simply use the B drive for data storage but it certainly isn't very easy to guess. Could it be, we ask ourselves, that the system was thought out for a 9512 and then hurriedly adapted for the poor 8512 owner?

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 Minimum Level : 20
 Re-order Quantity : 40
 Supplier : VIKING HELMETS & LTD

Enter Stock Record

From these few details, the System 3 can give you enough reports on your stock situation to keep your bank manager happy for a week.

book-keeping and some single-entry systems have made an attempt to come up with more meaningful terms than 'Nominal Accounts' and 'Manual Transactions Report'.

The documentation seems to do things right. It gives practical examples, setting up the system for a mythical company who seem to buy nothing but filing cabinets and listing paper.

The manual gives you a list of the Nominal Accounts you will need to carry out this example for the mysterious ABC Office Supplies. It doesn't go into the fact that you may want to add other Nominal Accounts or change some existing ones for the sensible running of your business (the program actually allows for 90 codes). And nowhere does it give a list of suggested accounts from which you could make a selection.

VAT's not the way

When you have set up your list of nominal accounts, do remember to take a printed copy of them and their four letter code. Throughout both programs you are always being asked for code numbers (customer numbers, account numbers, stock numbers) and there never seems to be an easy way to access these if you have forgotten that your sales account comes under the code X36Q.

There are some neat touches in setting up the bank accounts. Throughout both programs there always seems to be room for comments. The manual sug-

gests you should note the managers name or the fact that interest is paid in half-yearly. It could even be used to note your comments when the bank manager refuses you a loan.

Invoicing/stock control

Another potential restriction is in the way it handles VAT. It very kindly works out VAT on everything, assuming that any figure you put into the system is without VAT. This should work out perfectly for most of the time, but as everyone who has dealt with VAT knows there are times when things get complicated and you really need to enter VAT manually – a facility you don't seem to have.

The version that came into 8000 Plus was one of the first produced and there may still have been a few wrinkles to iron out but it certainly did not seem to be too robust. Occasionally, for no apparent reason, the program will jump into CP/M, losing virtually all the work done up to that point.

The Invoicing and stock control side of the system are lumped together for the sensible reason that if you invoice someone for something that you have sold, it will no longer be in stock.

This is ideal for wholesale businesses where you buy in stock, put on your mark-up and sell on. Even a service business – like a garage – where you might charge for hours worked and parts, could be catered for, although it would need some fiddling and that kind of detail is not covered in the manual.

It does not seem to be suitable for a manufacturing operation where the stock parts are the components for a product and they are not listed on the invoice.

That seems sensible

Similarly it is pitched more at a company with a limited number of regular customers – again a wholesale or specialist operation rather than a general retail business.

Having said that, for those businesses where System 3 is suitable, the Invoicing/Stock Control system is about

as sensible an arrangement as any on the market.

While this section has the same strengths as the Cashflow Controller in its reports, the Invoicing/Stock Control also has added advantages in the warnings that it gives. These range from the fact that a customer is exceeding his credit limit, that your stocks are running low or even that you have dropped your price so much that you are not making a profit.

The system is simple. You list the details of your customers giving address, credit limit, balance and, in fact, anything else you feel like listing – as normal for System 3 it has room for comments.

In another section you list your stock including buying price, selling price, numbers in stock, the minimum number you need before re-ordering and the number of items you would order.

From these few facts

From these simple facts the program is capable of producing a wealth of reports for the home or small business. These include a stock summary and valuation (including mark-up), what stock has been issued, what needs to be reordered and a price list. It even prints out a form to help you do your regular stock take.

But it is in the invoicing section that everything really begins to slot together. When writing an invoice you simply call up a customer (using the four digit code) and the stock items (using another four digit code), enter the number of items bought and the computer does the rest without any further intervention from you.

In one act you can produce an invoice and subtract the number of items sold from your stock. It also handles credit notes and payments in a similarly painless manner and will quickly produce a list of debtors when the time comes for the boys to go round and collect.

Once the invoices are sent, you produce statements and, at the end of the month, a simple process clears all the statement details out of the system. ●

Seeing red

One disconcerting feature of the Cashflow Controller is that, when setting up the bank accounts, you cannot enter a negative figure. You can get round it but you can't help feeling that any program that presumes a small business bank account will be in credit is not totally in touch with reality.

Cashflow controller

Pluses

- ▲ Good compromise between single and double entry book-keeping
- ▲ Excellent reports
- ▲ Flexible system based on your own needs

Minuses

- ▼ Manual doesn't properly explain the setting up of the program
- ▼ Still uses unhelpful accountancy language

Ease of use	2/5
Documentation	2/5
Features	4/5
Performance	4/5

8000 Plus Value Verdict 12/20

Invoicing/stock controller

Pluses

- ▲ Simple and effective linking of Invoicing and stock control
- ▲ Good reports
- ▲ Good warnings system

Minuses

- ▼ Limited mainly to wholesale operations
- ▼ Documentation does not give any ideas for setting up the system for other types of business

Ease of use	4/5
Documentation	2/5
Features	4/5
Performance	3/5

8000 Plus Value Verdict 13/20

IF ONE PICTURE IS WORTH A THOUSAND WORDS
THINK WHAT YOU CAN SAY WITH

MICRO *design*

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ARE YOU ONLY USING HALF YOUR PCW? If you have difficulty understanding and using CP/M then SuperDOS is for you (not for the unexpanded 8256 or hard disc drives) (V1.02) (£25.17 + VAT) = £28.95

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LocoFile	£22.50	LocoScript 2 v2.28	£20.95
LocoMail	£23.95	LocoSpell 2	£17.25
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24 Pin Printer Drivers	£20.75	LocoFont Set 2	£12.50

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		24 Pin Printer Drivers	£20.75

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PCW 8256/8512 owners who purchase a printer will also need an Interface and printer cable. We also strongly recommend LocoScript 2. For all PCWs we recommend Locomotive's Printer Drivers Disc and/or the 24 pin Printer Drivers Disc for maximum compatibility with LocoScript 2.

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Check it Out

Throw away those hefty, mildewed tomes in favour of the slim, svelte lines of your 3 inch LocoSpell dictionary. Sophie Lankenau shows you why 'versatility' is this program's middle name

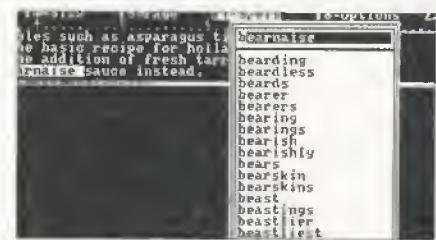
When you first begin to experiment with LocoSpell, you may be forgiven for feeling a vague sense of bafflement. "Surely," you think to yourself, "one dictionary is just like any other." But it's not as simple as that with LocoSpell. Fortunately so, we might add. It is precisely

because the program's creators have set such store by flexible working patterns that they have defined three different dictionary types on the system disc, each one of which is guaranteed to suit the varying requirements of LocoSpell users. Here are the differences between them.

The System Dictionary

When you have installed LocoSpell on your LocoScript start of day disc, the disc management screen will show a **LOCOSPEL.DCT**. This is the system dictionary, and it is automatically copied on to the M Drive before you begin your work. Every time you enlist the services of LocoSpell while editing a document, it is to the system dictionary that the program turns. So, when a spell check is carried out, the program 'consults' this built-in, ready-made dictionary to verify your spelling of a word. If

the program questions a certain word, it is because the system dictionary does not contain it. This will either be because you have misspelt the word, or because it is an unusual term, such as a proper noun or an example of 'specialist' terminology. It is then up to you to tell the program to either correct or ignore the suspect word. The system dictionary is permanent, and its contents can only be changed by adding extra words – a process which we explain more fully on the next page.



LocoSpell consults the system dictionary at the appearance of an unfamiliar word

The User Dictionary

The user dictionary is a more flexible commodity than its larger relation, the system dictionary. It can either be temporary or permanent, and you can have one for every group on your disc if you so desire. So, if you organise your disc space so that similar documents are kept within the same group – say one group for letters, one for reports and so on – then you can allocate a **USERSPEL.DCT** for use within that group (see screenshot). It is rather like setting up a **TEMPLATE.STD** for different kinds of work; the **USERDCT**, which you allocate to a group is used as the default dictionary, and it operates alongside the system dictionary when a spell check is carried out.

With letters, reports and memos, the benefits of doing this might not be obvious. However, if, like the owner of the disc shown

in the screenshot, you have cause to use different kinds of specialist terminology in individual groups, then you will quickly see how having a specialist user dictionary at your fingertips will pay off. It will eliminate the annoying process of the system dictionary questioning a word which you know to be correct.

What we might term the 'temporary' status of a **USERSPEL.DCT** is probably most apparent when you are using LocoSpell for the first time. Once the start of day disc is loaded, the system dictionary and a **USERDCT** (which is empty) are copied over to the M drive, for quick and



Keep a **USERSPEL.DCT** in every group on your disc. This way specialist terminology will never be questioned during document preparation

The Specialist Dictionary

The **USERDCT** is more than adequate to store specialist information where the user is likely to need lots of different terminology – but in relatively small quantities. If, however, the majority of the written work which you produce on the PCW is concentrated around one subject area or application, you will find that creating a specialist dictionary is a better idea.

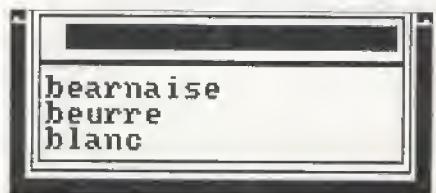
This could apply to any profession or hobby, from brain surgery to bird watching. You will need a store of the terminology which you use as often as other people use the word 'and', and you won't thank the system dictionary for continually throwing out words which

are commonplace in your line of work.

The system dictionary is the host for your specialist dictionary. You simply add the list of words created in a **USERSPEL.DCT** to the already hefty **LOCOSPEL.DCT**. This means that every time a spell check is conducted, the words which you have added to the large built in dictionary will be treated as acceptable when they feature in your work.

Because items in the system dictionary cannot be amended, it is worth copying the original system dictionary before you add extra insertions; you might not be a bird watcher or a brain surgeon all of your life, and you may

need the space for other specialist words at another time in your illustrious career. Copy the original, simply erase the elaborated version when you need to, and start all over again!



Add the contents of a user dictionary to the system dictionary to create a specialist dictionary

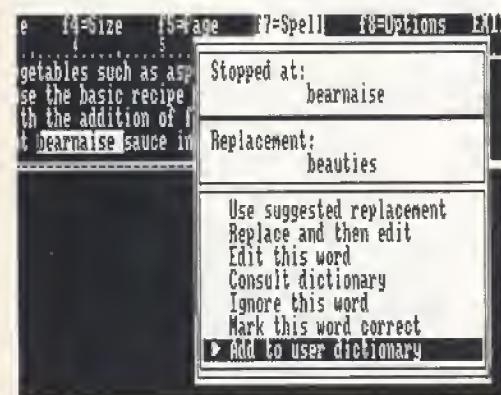
Once you have deciphered one dictionary from the other in LocoSpell, you can start putting them to work. Now we will take a look at how to compile those user and specialist dictionaries – and show you how to ensure that the dictionary you need is the one to which LocoSpell turns by default.

If you have not already established a **USERSPEL.DCT** in your experiments with LocoSpell, then this is an easy task. If you have, sit tight; the process is the same, but there is a pecking order to contend with, which we will look at in a moment.

You have completed a document containing some words which you know might not be commonplace to all and sundry – particularly your system dictionary. Press [F7], and set LocoSpell off on its search and destroy mission to find those 'spelling mistakes'. Our user has created a document in the group containing recipes, and has mentioned the addition of a rather tasty béarnaise sauce. The LOCOSPEL.DCT is no gourmet, and has isolated 'béarnaise' as a suspect word. The user knows that the future inclusion of this word in his or her work is a distinct possibility, so it would be wise to store it away as an acceptable inclusion.

Group search

The last option on the drop down menu is the solution – **Add to user dictionary** (see screenshot). By selecting this every time similar gastronomic references occur, a user dictionary is gradually built up. At the end of the spell check, the program will indicate the number of words to add to the user dictionary. All that is left is to ensure that



The chef's dictionary will contain many terms unfamiliar to LocoSpell. When such a word is questioned, add it to the USERSPEL.DCT. Save it to disc for permanent reference.

the USERSPEL.DCT is copied from the M drive on to the floppy for use in the future.

When you go back to a working disc where a USERSPEL.DCT is already in existence, you have a number of considerations to bear in mind. The first is whether or not the USERSPEL.DCT you have created will be of use in your next piece of work. If, like our user, you have several groups devoted to quite different subjects, then this is not very likely.

So, now we have to sort out the

'pecking order' mentioned earlier. When you recruit the services of LocoSpell's system dictionary to check through your work, it brings along a user dictionary to help it. The program scans through your disc to find the one to use. The order of search is as follows; the group you are in, the same group on the other drives in the order A B M C D; group 0 on the drive you are using, and then group 0 on the other drives.

If you want to create a new USER-SPEL.DCT for a group, you must be sure that there are no obstacles. So, if there is a user dictionary lurking in any of the above-mentioned locations, disguise it. Call it Fred, Bill, Gladys – anything, so long as it doesn't read USER-SPEL.DCT. Then you can continue with your document, and when it comes to the spell check, a new, group-specific user dictionary will be yours for the making. If you want to do the same in another group straight afterwards, you don't have to disguise the one you have just done as well; the offending USER-SPEL.DCTs which you renamed (temporarily) are the only ones which count.

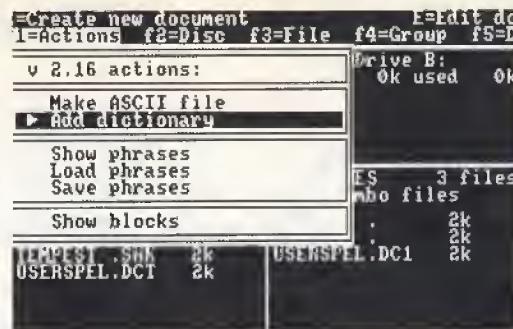
That special touch

Creating a specialist dictionary repeats the process for the USERSPEL.DCT above, until the end of the spell check. So, all you have to do is work through the check with LocoSpell, allocating those special words which are alien to the program but everyday to you, to a temporary user dictionary. At the end of the spell check, let the program **Update the user dictionary**, and [EXIT] from the document in the usual way.

To add these words to the system dictionary, thus authorising them as words which the LOCOSPEL.DCT should carry around at all times in the future, press [f1] forActions. You will notice the option **Add Dictionary** nestling beneath **Make ASCII file** (see screenshot). All you

have to do is highlight this command, press [ENTER] and wait. You will be asked to nominate a dictionary, and upon doing so, the program automatically shows the destination as LOCOSPEL.DCT. Press [ENTER] again, and your specialist dictionary is installed. Be sure that the details are correct; once they disappear into the Bermuda system dictionary, they are out of amendment's reach.

You can do this as many times as you like, but remember that the more listings in a dictionary, the longer it will



At the end of a spell check, you will have created your own user dictionary containing specialist or unusual words. Press [f1] to combine this with the system dictionary

take for LocoSpell to search and authorise words during a spell check. If you add too much on the back of the system discs, you might just as well use a hard-back dictionary for the time it will take the program to consult its store of words.

Codes of practice

We know how fussy LocoSpell can be about the words it comes across. The program does, however, have a code of ethics about its actions. It will check groups of letters which are ended with either a 'terminator' or a 'separator'.

Terminators are the word processing codes which appear on screen when you ask to **See state of codes** after pressing the [F8] Options menu. For example, a space, carriage return, CEntre, RAlign, tab or end of page mark. Separators are the marks of punctuation which occur throughout text, such as full stops, commas, colons, brackets and exclamation marks. Whenever the program sees these marks, it knows that a word is complete, and that the following sequence of letters should be interpreted as a new word.

What LocoSpell does not check is also quite straightforward. Single letters are ignored; this means that initials and say, lists of alphabetically identified 'points' in a report are regarded as unchallengeable. The program also objects to words of more than 32 letters, so if you need to use 'antidisestablishmentarianism' frequently in your work, you could be pushing LocoSpell's patience!

Words which you have **Marked as correct** (see drop down menu at the top of the page) will not be checked; when you do this, you allocate the word a **SiC** code, which tells the program that it is acceptable. It is similar to the effect of allocating a word to a user dictionary, only on a much smaller scale. The final criteria which will cause LocoSpell to avert its gaze is words which have one or more 'Killer' characters in them. These include almost all the characters on the top line of the keyboard which don't qualify as separators, (ie, punctuation marks) and their upper case partners. If you are making good use of the Greek and Cyrillic character keyboard then you'd better be sure that your spelling is good; these characters count as 'Killers' and won't be checked. ●

LocoSpell - the facts

LocoSpell costs just £19.95 and is available from Locomotive Software. For further information, phone them on 0306 740606.

RSC

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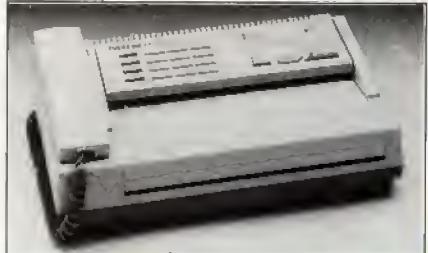
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LC24-10 80 Col £200.00

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KX-P1180 80 Col

KX-P1124 90 Col

KX-P1540 136 Col

KX-P1081 80 Col

KX-P1624

KX-P1695

AMSTRAD

LQ3500 80 Col

LQ5000 136 Col

P2+ 80 Col

P6+ 80 Col

P7+ 132 Col

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£1825.00

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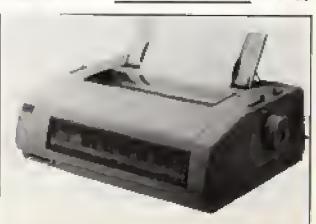
£879.00

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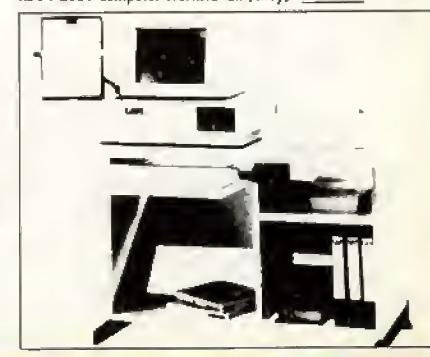
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Sweep it Up

Rob Ainsley presents a 10-point guide to perfect file management with Newsweep, the public domain program you cannot afford to be without.

Copying files

Replacing PIP.COM

Get to the file you want to copy by running Newsweep, getting the files displayed in the disc and group which has the file you want to copy, and get the name displayed by using [SPACE] and **B**. You type **C** for copy then one of the options below.

Suppose you have just brought up the document LETTER.1 in group 4 of the A drive on screen and pressed **C**. At the **Copy to (filespec)?** prompt, there are these types of response:

- a) **B** copies it to group 4 of B, calling the new file LETTER.1
- b) **B2** copies it to group 2 of B, calling the new file LETTER.1
- c) **LETTER.BAK** copies it to the same group and drive as the original, group 4 of A, calling it LETTER.BAK
- d) **B2:LETTER.BAK** copies it to group 2 of B, calling the new file LETTER.BAK
- e) **B:LETTER.BAK** copies it to group 4 of B, calling the new file LETTER.BAK

```
9. A4: LETTER .1 4K : c Copy to (filespec)? b2:letter.bak
9. A4: LETTER .1 4K :
```

Advanced use

You can mark out a selection of files and copy them all in one fell swoop - very handy if you have a lot of files to copy! There are two stages. First, you 'tag' a selection of files, then tell Newsweep to copy all those you've tagged to the destination.

To tag files, you can use a combination of manual and wildcard tagging. Manual tagging is easy. Just go through a group and press **T** after each file you want tagged. **A *** shows the file has been tagged.

Wildcard tagging lets you automatically tag all files of a pattern specified by ***** and **?**. Press **W** and then give a pattern such as ***.COM**; all files such as PIP.COM, PAPER.COM etc. will be tagged. Similarly, **???.LET** would tag all files of three letters or less ending in **.LET**.

You can tag lots of files by sequences of manual and/or wildcard tagging. The command to 'untag' a file is **U** followed by the name of the file. This enables you easily to tag all files of the pattern ***.LET** except one or two, say.

To copy all the tagged files, press **M** for 'mass copy' followed by the drive, group or both (eg. A0, B or 8). After copying, files are untagged. (The ***** changes to a **#**). You can re-tag them by pressing **A**. The **k** size of tagged files is shown, so you can check space availability on the destination disc.

```
1. A2: 'INDEX' . 1K : w Tag what? chapter.*  
Tagging--> A2: CHAPTER .1 18K ( 17K)  
Tagging--> A2: CHAPTER .2 30K ( 12K)  
Tagging--> A2: CHAPTER .3 50K ( 20K)  
Tagging--> A2: CHAPTER .4 69K ( 19K)  
Tagging--> A2: CHAPTER .5 82K ( 13K)  
Tagging--> A2: CHAPTER .6 99K ( 17K)  
Tagging--> A2: CHAPTER .7 109K ( 10K)  
Tagging--> A2: CHAPTER .8 116K ( 1K)  
Tagging--> A2: CHAPTER .9 121K ( 11K)  
10. A2: CONTENTS. 5K : t Tagged files = 126K ( 5K)  
11. A2: NOTES . 1K :
```

Getting to grips

Replacing DIR.COM

Run up CP/M and at the **A>** prompt insert a disc with Newsweep on and type **NSWP [RETURN]**. You see something like this:

```
NSWEEP Ver 2.07 (c) Dave Rand
Supplied by ADVANTAGE, The Independent Computer User Group For The AMSTRAD
Drive A0:??????????.???. 17IX in 44 files. 2K free.
1. A0: -COMPLEA.227 1K :
```

You're getting a list of the files on the disc with Newsweep on it, but you probably want to see the files that are on another disc. Replace the Newsweep disc with one you want to look at; now you must tell Newsweep that you want it to look at another disc.

The command for this is **L** ('Log onto a new disc') followed by either:

- a) the name of a drive, such as A or B or M;
- b) a user number (LocoScript's group number) such as 0 or 1 or 5;
- c) a combination of the two, such as A0 or B6.

End with **[RETURN]**. Suppose you want the files in group 0 of the A drive. The files are listed alphabetically, one by one. To get the next

```
1. A0: -COMPLEA.227 1K : l New drive/user/mask? a2
NSWEEP Ver 2.07 (c) Dave Rand
Supplied by ADVANTAGE, The Independent Computer User Group For The AMSTRAD
Drive A2:??????????.???. 134K in 12 files. 30K free.
1. A2: 'INDEX' . 1K :
2. A2: 'CHAPTER' .1 17K :
3. A2: 'CHAPTER' .2 12K :
2. A2: 'CHAPTER' .1 17K :
```

```
1. A0: -COMPLEA.227 1K : l New drive/user/mask? a2:CHAPTER.*
```

```
NSWEEP Ver 2.07 (c) Dave Rand
Supplied by ADVANTAGE, The Independent Computer User Group For The AMSTRAD
```

in the sequence, press **[SPACE]**; to keep them coming, keep **[SPACE]** pressed down; to go back, press **B**; to keep on going back, keep **B** pressed down.

Notice how Newsweep tells you the size of each file, and also gives the total space taken up by the files and the free space on the disc.

Erasing files

Replacing ERASE.COM

To delete a single file, select it by using **[SPACE]** and **B** and press **D**. Then confirm with **Y**; press any other letter to stop the deletion.

To erase a selection of files, tag the ones you want to erase (or just the ones you don't, if this is quicker) using manual or wildcard tagging as described in 'Copying' then press **E**. A further

question asks you if you want to erase the tagged or untagged files; press **T** to erase all tagged, **U** to erase untagged.

A further question asks you if you want to confirm each file's erasure (press **Y**) or not (press **N**). (Pressing **A** lets you untag or tag selected files, so you can modify your selection).

```
11. A2: NOTES . 1K : d Delete file? y
11. A2: BIBLIOGRAPHY . 1K :
```

What is Newsweep? It's a program that can probably replace DIR.COM, PIP.COM, ERASE.COM, SET.COM, TYPE.COM, SHOW.COM, and RENAME.COM for you - all in 10k of disc space and for a fiver or so. For CP/M users it can be a boon, enabling quicker and easier file organisation.

LocoScript users can benefit too.

Have you ever run out of space on a disc? Newsweep can 'squeeze' your documents so they take up 40% less room. Have you ever wanted to copy or erase a number of files in one go and found yourself having to do it one-by-one? Newsweep can take over that particular task for you.

Detailed below are 10 ways in which Newsweep can help you. Those

points of particular interest to LocoScript users are indicated, but all of them are of benefit to CP/M users.

Newsweep is in the public domain - hence its low price of £5.95. For your copy, send your cheque, postal order (or telephone through with your credit card number) to Advantage Software at 56 Bath Road, Cheltenham, Gloucester GL53 7HJ (0242 224340). ●

with the basics

* and ? are known as wildcards: * stands for any word or blank, ? for any letter (or single blank). For instance,

*.COM means all files ending with .COM, like PIP.COM, MO.COM, MAIL232.COM and others.

DOCUMENT.* means all files beginning with DOCUMENT - DOCUMENT.01, DOCUMENT.JON, DOCUMENT and so on. P*.COM means files like PIP.COM, PAPER.COM, PROTEXT.COM etcetera.

. means all files on the disc.

DOCUMENT.?? means DOCUMENT.01, DOCUMENT.JS, DOCUMENT.X, but not DOCUMENT.001 or DOCUMENT.JON.

B?S???.COM means BASIC.COM, BUST.COM, BUS.COM etc., but not BISMARCK.COM.

???? means all filenames with four letters or less.

?????????.?? means the same as *.*

You can combine * and ?, as in *.? which means 'all files with one letter or less after the dot'.

When you press **L**, you can specify the sorts of files you want listed. Newsweep shows you at the top what you specified (if you specify nothing it gives you all files on the disc, hence the ????????.?? at the top). Here are some examples:

A* shows all files in all groups of the disc in A, instead of just one group.

B6.*.LET lists all files ending with LET in group 6 of B.

```
1. A0: -COMPLEA.227 1K : 1 New drive/user/mask? a2:CHAPTER.*  
NEWSWEEP Ver 2.07 (c) Dave Rand  
Supplied by ADVANTAGE, The Independent Computer User Group For The AM  
drive A2:CHAPTER .* 12IK in 9 files. 30K free.  
1. A2: CHAPTER .1 17K :  
2. A2: CHAPTER .2 12K :  
3. A2: CHAPTER .3 20K :
```

M0:???.* lists all files in group 0 of M with three letters or less in the first part of the name.

The message at the top shows the total K taken up by files of the

Squeezing files

Very useful - this makes your files up to 40% smaller, saving disc space. Best for archiving use, try **S** for 'squeeze' and give a destination group and/or drive number (which must be different from where they are now). The files are squeezed and copied on to the destination you gave. To unsqueeze files, tag them and press **Q** followed by **U** for 'unsqueeze', then a destination. You can now use them again.

This works best with big (over 12K, say) files - even a squeezed 4K LocoScript file may well still be 4K. Also beware of the new name: squeezed files get a Q put in their name, eg. DOCUMENT.001

becomes DOCUMENT.0Q1. Unfortunately both LETTER.01 and LETTER.02 become LETTER.0Q, so watch out! If a file isn't worth squeezing, Newsweep just copies it as it is - see CHAPTER.2 below.

```
2. A2: CHAPTER .1 17K :*g  
Squeeze, Unsqueeze or Reverse? (S,U,R)? s  
Copy to drive/user? m  
S0/USR --> A2: CHAPTER .1 to M2: (CHAPTER.1.Q )  
S0/USR --> A2: CHAPTER .2 to M2: (CHAPTER.2.Q )  
S0/USR --> A2: CHAPTER .3 to M2: (CHAPTER.3.Q )  
2. M2: CHAPTER .10 17K :*g  
Squeeze, Unsqueeze or Reverse? (S,U,R)? u  
Copy to drive/user? a  
S0/USR --> A2: CHAPTER .10 to M2: (CHAPTER.1 )  
S0/USR --> A2: CHAPTER .2 to M2: (CHAPTER.2 )  
S0/USR --> A2: CHAPTER .30 to M2: (CHAPTER.3 )
```

Printing files

Select the file and press **P**. The contents of the file are sent to the printer, but don't expect your LocoScript document to print out at all sensibly!



PCW-ToolKit has long been the leading disc recovery tool available for the PCW. Specially designed, it makes full use of the PCW's screen and keyboard to allow *anyone* to recover damaged discs and lost data easily.

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Uncle Sam's Phone-in

It's big, it's brash, it's ... CompuServe, one of the biggest on-line databases in the United States. Andrew Bibby checks out its recent UK debut.

Here's what you need to get access to the CompuServe on-line service: one Big Mac, one Coke (large), a credit card account and an Amstrad PCW with modem.

Well, all right, perhaps the hamburger and the Coke aren't absolutely essential; they could help, however, to get you in the right mood. CompuServe is the world's biggest electronic information service for personal computer users; it is also American through and through, although since March of this year, it has been actively encouraging British subscribers to sign up, too.

CompuServe provides under one electronic roof the sort of on-line services which in Britain come separately, if at all. The nearest British equivalent might be BT's Micronet, the home computer user's club which offers chat lines, bulletin board-type information, news, gossip, and access to the Prestel database. But CompuServe also includes the kind of facilities, like E-mail and business databases, offered by Telecom Gold.

These comparisons, in any case, give no idea of the enormous size of the CompuServe service: the ring-bound User's Guide alone runs to over 250 pages, for example, and that's just one of the many publications available to help you get started. 'Serious' users will no doubt want to equip themselves with all the 492 pages of advice offered by American journalists Charles Bowen and David Peyton: their book "How to Get the Most out of CompuServe" has already gone to four editions.

Tactical mission

So just what does CompuServe offer to its 550,000-odd users? Let's start at the entertainment end of the business. If you and your Amstrad are feeling bored with the day to day grind of spreadsheets, databases and BASIC, you can log on and entertain yourself with a whole range of adventure games. You know the sort of thing: there's the 'Island of Kesmai' ("Many years ago a group of magicians wanted to escape persecution ..."), 'Castle Telengard' ("Adventure, treasure and fearsome creatures await you ..."), 'Sniper!' ("you are commanding a squad of soldiers on a key tactical mission ..."), or – for American football buffs – 'Football'

("it's fourth down and goal-to-go ...").

And there are many more, including a bizarre electronic reconstruction of an American TV panel game called You Guessed It!, which presumably allows you to participate without millions of American viewers watching your humiliation. Not all such quiz games lend themselves to such adaptation; it is somehow hard to imagine justifying the cost of logging on to an electronic Call My Bluff for more than a few minutes

at a time. As for The Price is Right, well, it's probably safest in the hands of satellite television.

Alternatively, you can take part in live on-line chatting with other CompuServe users with the CB Simulation service. Like Citizens Band radio, you'll need to think of a suitable name first (your 'handle'). You then have the chance to participate (or just 'lurk', and see what's going on).

The night I logged on, Channel 1 ➤

Operation UK!

The man charged with the task of introducing British people to CompuServe is Andrew Gray, the UK General Manager of the service. He and a small staff have been operating from an office in Bristol for the last few months, trying to build on the small core of current CompuServe users here.

As he explains, CompuServe's direct activity in the British market is part of a general European initiative. CompuServe joined forces last year with the Swiss company TeleColumbus to launch a new joint company

CompuServe/Forum.

The plan is for TeleColumbus's existing database service and E-mail facility

(DataStar and DataMail) to be integrated and developed, so that CompuServe/Forum will, in the future, be more than simply a North American service.

In fact, although CompuServe's main computers are located at Columbus, Ohio, British users are routed initially by Iritel to TeleColumbus's computers in Switzerland, where much of the CompuServe data has been replicated. "If you then access a product which is on an American machine, you will be switched through automatically," says Andrew.



Andrew Gray, CompuServe UK's General Manager, is the man behind the introduction of the database to British users

The Iritel link was introduced in March of this year and, according to Andrew, has reduced the cost of accessing CompuServe from about £50-£60 an hour. Other carriers will also be introduced in due course:

"We're firming up the technical network, and will be offering other network access – there's no question about that," he says.

What's less clear is if and when EasyPlex E-mail users will be able to talk direct to Telecom Gold subscribers, the most popular British E-mail service. At present, the only E-mail links of use to most British users are those via InterNet to the academic network JANET, and to FidoNet.

Andrew Gray has set his sights initially on a specialist computer-related market rather than the more mainstream Prestel-type user. "Our target market is made up of those people who are very clearly monitoring the computer industry – for example, somebody who works for a company and has been given responsibility to look after the equipment and to upgrade software." He points out that most of the forums concerned with computer issues are run by the computer companies themselves – "and it's a serious business for them".

Dial a hand!

Don't be put off if your local Istel node initially greets you with a few lines of 'garbage'. Enter CIS (for CompuServe), and you should immediately be prompted for your CompuServe ID and password. If you have any problems, contact CompuServe's British help and technical support desk (phone 0800-289458).

Keep a secret

The only thing which stands between you and an astronomical credit card bill is your good sense and your CompuServe password. Use your password only when you log on, and never give it to anyone. Watch out for the on-line scam, where another CompuServe user tries to wheedle the information from you. The most common way this is done is on the CB service, where you may be told that the service has encountered a technical difficulty, that you have been temporarily 'logged off', and will have to sign on again. Don't believe it!

was hardly riveting stuff - certainly not even up to the standard of Rubber Duck calling Big John whilst thundering down the M4. I was privy to a less than gripping exchange involving somebody called Penguin Dropball, who was chatting to Miss B and a few other disembodied souls. The conversation went something like:

Penguin: Hi, everybody
Miss B: Hugs, Penguin [this is how CBs greet each other]
Penguin: Hugggs, Miss B..

If the prospect of talking for hours to strangers bearing decidedly odd names doesn't exactly grab you, you will be relieved to learn that CompuServe also provides up to 72 separate 'channels' for CB types. Most are of general interest (or lack of interest); some have even been allocated to particular groups and communities for their specific use. Channel 33, for example, is used primarily by gay men.

Meet me at the forum

By contrast, real names rather than CB-style 'handles' are the rule in the various CompuServe Forums, reflecting the much more serious use that is made of this part of the network. There are a hundred or more of these special interest groups, run in the same way as independent bulletin boards with their own Sysops (system operators).

For example, if you are a railway enthusiast (sorry, change that to railroad enthusiast), you might want to drop in on the TrainNet Forum. Keen on tropical fish? - try Fish Forum. Organic gardening and all things green? - Good Earth Forum awaits you.

As well as the forums for hobbyists, others bring together fellow professionals: there are on-line groups for journalists, lawyers, medics and for people working from home, for example. There are also some potentially extremely useful forums on particular computer hardware and software products, offering tips, advice and information.

Unfortunately, Amstrad have yet to make it big in the States, so that you won't be able to tap in to CompuServe for the latest news on your PCW (you'll just have to keep buying *8000 Plus* for that). You could of course take the opportunity to update yourself with on-tap information about the Apple Macintosh, but you might be better advised to check out the CP/M forum, which could be worth investigating.

Good forums provide an arena for on-going discussion and debate among people with shared interests. They typically include a 'message board' where the latest communications from forum members can be read (and replied to) and a 'library', where a range of information files can be consulted or downloaded. Joining a forum is, in most cases, free and extremely simple (you just have to give your name). If you choose to, you can also record your particular interests in the on-line members' register, so that others may contact you for information on a particular subject.

It's perhaps worth adding that, because British CompuServe users are still something of a rarity, you may find other forum members particularly interested in talking to you - a chance perhaps to build up some potentially useful North American contacts! Beware of entering such conversations whereby said North American discovers the name of your home town and proceeds to list at least ten of his ancestors who live in the vicinity. Interesting though it might be, it will cost you dearly

Easy Plexy

If you do want to talk directly to other CompuServe members - rather than indirectly through a forum - CompuServe has an electronic mail service, known as EasyPlex. EasyPlex is similar to other E-mail services, such as BT's Telecom Gold, though as yet there is no gateway between the two services.

Some parts of the CompuServe network will appeal less to British users. There is an extensive range of US financial databases, for example; these include investment advice and analysis, which won't be very relevant or interesting for most people in this country.

There is an even bigger section of CompuServe devoted to on-line shopping: subscribers can order a Slam-Dunkers Indoor Basketball Set, an Eskimo yo-yo, "the Pam Busch Complete Chocoholic First Aid Kit", or even a Nissan truck. Very handy on the approach to Christmas if you are unable to make it to those old fashioned buildings with shelves and a cash till - but not so good for the British bound CompuServer. Most of the traders in the 'Electronic Mall' won't supply these goods outside the USA or Canada.

Go to it

CompuServe operates on a menu basis, so that you can start at the Top Menu and work your way slowly through sub-menus until you find exactly what you

want - the US Soap Opera Summaries perhaps. But this takes time. More usefully, you can also use the powerful GO command to pop straight to the area you want: GO SOAPS, in this instance.

The CompuServe prompt is normally an exclamation mark, !, and it's worth remembering a few basic instructions, in case you get stuck. !T takes you straight back to the top menu, !B returns you to the previous page you were viewing, and !M offers you again the previous menu. If all else fails, control-C (on PCWs, the ALT key and C pressed together) provides a quick way out if you're in apparently intractable difficulties. However, don't disconnect from CompuServe altogether without logging off first (!OFF or !BYE); otherwise the computer could continue debiting your account until it discovers you've gone, and that may take another fifteen minutes. (See below for prices)

Up until Spring this year, the few adventurous types who wanted to log on to CompuServe from Britain generally had to make their own way there, either by direct dialling to an access point in the States or by subscribing to an international data packet service.

From March, however, access to CompuServe has been possible via the Istel network, which has about eighty local nodes around the country. For most people, Istel can be reached for only the price of a local phone call. (Istel's service is perhaps less well known than its rivals like BT's PSS, though it now provides access to Microlink, having poached it from Telecom Gold last year).

You also have to join CompuServe. The one-off fee costs £29.95, and for this you'll be given the User's Guide already mentioned, and a credit of \$25 (yes, dollars, not pounds) to set against your first bill. A second user can be enrolled for no extra charge.

And at least the initial phone call, to get further information, is free: the number to ring is 0800-289378

At what price communication?

Yes, CompuServe costs money. When you first sign on as a new user, you will be asked to provide details of a credit card account, and the charges you run up on-line will be automatically taken from this account. This is nice and easy for them (no doubt BT would love to operate the same way for Prestel, which has had horrendous bad debt problems); it means, however, that you have to safeguard yourself from having a nasty shock each month.

CompuServe still operates entirely on a dollar-billing basis (though of course the total in dollars is translated into pounds on your credit card account). The ordinary access rate for British users of CompuServe is now \$22 an hour (made up of \$12.50 an hour for CompuServe itself, and a further

\$9.50 an hour for the carrying network, Istel.)

There are extra charges for some specialist services (such as the business database facility IQuest), and a monthly subscription of \$1.50, though the first three months are free.

There are also certain on-line services which are free of the CompuServe element of the charge, though not the carrying fee. These include the introductory run-through of what's available on CompuServe, designed for new subscribers (!GO TOUR), and the on-line helpdesk (!GO QUESTION). If you're worried about your charges, you can always check the amount you've managed to run up so far (!GO BILLING). Sadly there is no !GO DOCTOR to help you recover.

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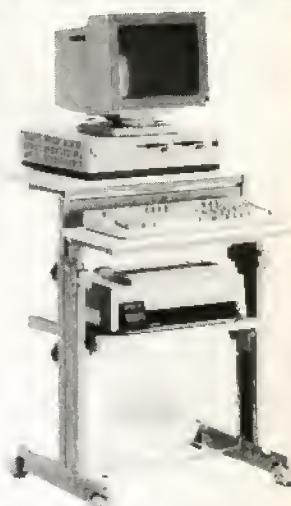
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4 x 15/16.....5.09.....7.78

4 x 17/16.....6.09.....9.96

4 x 115/16.....7.80.....13.09

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2 3/4 x 15/16.....3.73.....6.39

2 3/4 x 1 7/16.....4.51.....7.61

3 1/2 x 15/16.....4.15.....7.13

3 1/2 x 1 7/16.....5.37.....9.52

3 1/2 x 115/16.....7.79.....12.96

4 x 15/16.....5.19.....8.04

4 x 17/16.....6.09.....9.96

4 x 115/16.....7.65.....12.78

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2 3/4 x 15/16.....3.51.....6.23

2 3/4 x 1 7/16.....4.39.....7.51

3 1/2 x 15/16.....3.69.....6.36

3 1/2 x 1 7/16.....4.87.....8.48

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Prints Charming

Find out all the ways in which you can breathe new life into tired ribbons.

Cyril Saunders and the 8000 Plus team look at that most taken-for-granted PCW component ...



The 8000 (above) and 9512 ribbon cassettes. The ribbon inside the former is 5/8" wide and, as you can see, has a twist in it. Once the 20 m length has passed, the ribbon automatically twists over. The 9512 ribbon is only 1/4" wide; only one part of it ever passes the print head. The cassette is also much smaller.

False alarm

Be wary of the many spurious warnings often afforded by computer shops and/or printer manufacturers whenever re-inking is mentioned to them.

A favourite of these is that the ink used can gum up the delicate and hard-working print-heads on dot-matrix printers or block up the typefaces on daisy-wheels. It must be said that both of these things are possible but rarely occur. Re-inkers would have been put out of business years ago if such damage was caused frequently. Being spirit-based, any build-up of carbon that occurs can be removed with white spirit.

Is the impression from your PCW's printer ribbon slowly turning grey? Come to that, was it ever really black? Even when you removed it from its wrapper, did you wonder how long ago it had been manufactured? Well, the good news is that there are a number of high-economy alternatives to just hitting the shops and automatically forking out what sometimes amounts to another fiver on a brand new replacement ribbon.

Of course, it pays to buy the right kind of ribbon in the first place. Unfortunately, even a purchase as simple as that can be fraught with confusion these days. Which one you choose can have a direct bearing on its price, the quality of its printout and the duration of its life. But do you know what the relative drawbacks and merits are of fabric ribbons, carbon ribbons, carbon multistrike ribbons, nylon ribbons, high density fabric ribbons – to name but a few? The list is endless.

And then there's re-inking, claimed by some to be the most environmentally friendly solution of all. You can only consider doing this, however, if the ribbon is fabric (that is, nylon) and you can either send it away to be re-inked or do it yourself. It's up to you. A company like Data-Access based in Dyfed, South Wales, will charge £1.90 per ribbon to

have it re-inked black and £2.30 per ribbon to have a colour re-inking. Although they don't do quantity discounts, from September 1st those prices will be inclusive of return postage and packaging. Data-Access' re-inking process usually takes about two days "in plant" with the usual transit time on either end of that.

Restorative powers

If you prefer to do it yourself, Caspell Computer Services manufacture a spray can of fabric ribbon restorer. At just £8.95, Ribbon Refresh has a maximum of 30 applications. The re-inking process also represents the 'greenest' option for two reasons:

- 1) Since we're all now fighting the indiscriminate 'dumping' of indestructible waste, re-inking helps eliminate the estimated annual disposal of three million metric tonnes of plastic. Why throw away the whole cassette component when it fails even though 90% of it still has years of good use left?
- 2) It saves the energy consumed in making further replacement cassettes.

Many of you will already have discarded your used fabric ribbons. But not only can most of them be re-inked, they can be fitted with a new ribbon, much longer than the original. Some users have complained that certain cassettes

have had as little as two and a half metres of ribbon in them while others have contained a standard length of fifteen metres. More of that anon.

Those who have 'used' cassettes can not only have them refilled with fresh ribbon, but inked with a choice of several different colours. Data-Access, for example, the company we mentioned earlier, will re-ink fabric ribbons in black, brown, orange, blue, green, red and purple.

What's what?

Re-inking aside, trying to work out exactly what kind of ribbon to buy can be a very baffling process. Suppliers and manufacturers tend to bombard the unsuspecting querant with all sorts of benefits always couched in the most seductive of terms. So what are the differences between these many different kinds of ribbons?

Fabric ribbon: This is the same as a nylon ribbon and is the only type that can be re-inked. This makes them, therefore, one of the most economical choices. Such ribbons are multi-strike; in other words, the nylon loop of ribbon is soaked with ink and goes round and round the cassette until it begins to fade. The re-inked ribbon will show no deterioration on printout; indeed, the quality can sometimes be much improved sim-

ply because the ink will not have had time to evaporate.

Even if your PCW printers are kept busy for something like eight hours every day, it is possible for a fabric ribbon, which is re-inked approximately once a month, to survive both you and your PCW. Now there's a sobering thought.

Carbon ribbons: This is a ribbon roughly akin to a thin piece of 'plasticised' carbon paper. If you want the ribbon that you buy to produce constant, jet-black images throughout its life, this is the one for you. Unlike fabric ribbons, these ones are single-strike; this means that the carbon-coated plastic film passes just once through its cassette. After each character is produced, the film is moved forward ready for the next strike ensuring an even density of impression.

While the carbon film ribbon can't be re-inked, it can often be replaced with a fabric ribbon (but only if the mechanism is one which will transport the ribbon continuously). Carbon ribbons are slightly more expensive than their fabric counterparts.

Fabric longlife: Such ribbons can usually be expected to contain about 20 metres of ribbon inside the cassette. Bargain-priced ribbons may only be a third to a quarter of that length. Similarly, normal life ribbon cassettes may contain less than 20 metres of nylon.

High quality/density fabric: The nylon used in these ribbons is sometimes – not always – of a slightly better quality.

Amstrad brand ribbons: Whether fabric or carbon film ribbons, these are considered by many people in the industry to be the best, simply by virtue of the fact that they are manufactured to extremely high tolerance levels. This is in terms of quality and longevity. ●

Fooling Daisy

The PCW 9512 gets through its carbon ribbons quickly. If you want to produce a draft copy of a document, it is possible to do so without wasting a new one. You can fool the printer by putting in a used ribbon with the actual ribbon cut so that the spool simply revolves. Print out the draft copy of your document by sandwiching a piece of carbon paper between any piece of A4-sized paper and the paper that you actually want to print on. One sheet of carbon paper will last a surprising length of time. This tip will work just as effectively on the 8000 series machine.

Doing the rounds

An alternative way of breathing new life into tired fabric ribbons is as follows. Instead of fiddling around trying to remove the top of the ribbon cartridge, you can do the job just as effectively with an ink pad, a toothbrush and a bottle of Tipp-Ex. Make a tiny mark on the ribbon with the Tipp-Ex

Suppliers' directory

Supplier: Alladink	Product: PCW ribbons (selected)
Product: Re-inking service	Phone: 081 567 7313
Phone: 0890 750965	
Supplier: A-Z Computer Service	Supplier: MJC Supplies
Product: PCW ribbons (selected)	Product: PCW 8 and 9 fabric and film multistrike ribbons
Phone: 081 744 3087	Phone: 0462 432897
Supplier: Caspell Computer	Supplier: PCW World
Product: Ribbon Refresh and 8 and 9 fabric (longlife) and multistrike film ribbons (all colours)	Product: PCW 8 and 9 fabric and carbonum film ribbons (all colours)
Phone: 0202 666155	Phone: 0384 66269
Supplier: Compumart Limited	Supplier: Ribbon Re-ink
Product: PCW 8 and 9 series fabric and carbon multistrike ribbons	Product: Re-inking service
Phone: 0509 610444	Phone: 0884 257879
Supplier: Computaccount (UK) Ltd	Supplier: RSC
Product: PCW ribbons (selected)	Product: 8 and 9 multistrike ribbons (all colours)
Phone: 021 428 1111	Phone: 0923 243301
Supplier: Data-Access Service	Supplier: Silicon City
Product: Fabric printer ribbon re-inking service	Product: PCW ribbons (selected)
Phone: 0554 771977	Phone: 0209 891141
Supplier: Dunning Computer Services	Supplier: SK Marketing
Product: 8 and 9 fabric (std and extra life) and multistrike ribbons	Product: PCW 8 and 9 nylon and carbon ribbons
Phone: 0202 431762	Phone: 0923 896969
Supplier: Kavin Computer Supplies	Supplier: The West of Britain Business Services
	Product: 8 and 9 fabric and carbon multistrike ribbons
	Phone: 0558 823782

Hints and Tips

brush, and then brush some ink onto each little bit of the ribbon that is exposed as you wind it on through the cassette. Make sure you spread some newspaper around. Keep going until the little white Tipp-Ex mark reappears. Then you will know that you've covered the whole ribbon then.

Upside down

Double the life of those expensive 9512 carbon ribbons by turning them upside down in the cassette so that you can go on to use the lower, untouched half. Remove the ribbon cassette from the printer and release the catches which hold the two halves of the cassette together. Gently prise off the top using either a thin blade or a screwdriver; keep the case upright throughout the entire performance.

You should, at this point, see the ribbon all bunched up in the middle. Now, take note of exactly how it is threaded through the cogs and out of each of the arms on the left and right. On the right, you will see that the

ribbon passes through two cogs after it has entered the case.

The rear cog is spring-loaded; push it backwards and lift the ribbon free. All you have to do now is tip the ribbon out onto your work surface. Take a length of the ribbon and thread it through the arms and the cogs as noted before. This time, however, the shiny side should be facing inwards (ie, the shiny side should be facing the left one when threading – and vice versa).

The used half of the ribbon should now be at the bottom. So far, you've got a length of ribbon threaded inside the casing, through the cog wheels and out through the arms the left and right. The main mass of the ribbon is still lying on the table. Now replace the top of the casing.

All that's left to do is wind the remaining ribbon into the casing by turning the knob on the outside of the cassette. Make sure that the ribbon goes in straight. NB: You can't do this with fabric ribbons as they are designed to 'turn over' automatically and both halves are consequently used.

Get kitted out
Berwickshire-based Aladdink (see left) are the first to introduce a DIY multistrike replacement kit for the PCW 9512. This kit (costing £10.99) is specifically for carbon film refurbishment. It comprises two cassettes, four replacement ribbon spools and full instructions. See News Plus for further information.

All that glitters

Journalist Keith Pomfret finds his PCW a more than adequate defence against the latest "ailment" of the computer age

There are few things guaranteed to get my hackles up more than a snob. An ordinary common or garden snob with an inferiority complex is bad enough; but with the computer age comes the new improved silicon techno-snob.

Us mere mortals get no more than the occasional twinge of Repetitive Strain Injury (RSI) or Red-Eye from our electro-beasties but for the snob there's 'Micro-Sneer.' The symptoms of this acute ailment are the curled lip and the sideways look that slides straight down the nose. It is reserved for the user of inferior computers and peripherals and arrives with all the ego curling energy of a 50 watt krypton laser.

The techno snob owns a designer PC and hovers on the edge of technological gatherings like a demented dragonfly, ears finely honed and waiting for the magic letters PCW or CP/M.

Yellow as they come

If the techno snob wasn't an inveterate coward, PC and Macintosh users would be on the list of fair game but that would mean research. The snob sees PCW owners as an 'easy' target in rather the same way that a large yob sees a small shopkeeper.

"You don't use one of those?" says the snob at about 96 decibels getting the attention of the closest hundred or so people. The battleground thus prepared, guns are loaded and before you can admit or deny it fusilade number two lands. "An out of date operating system, an EIGHT bit processor and worst of all, LocoScript." The last three syllables are spat out with the staccato rattle of a Gatling Gun.

If you're nodding your head by now, you've met one. If you aren't, you've not had your PCW long, you don't go out much or you're choosy about your company. The first time that I chanced on one of these unwelcome wallys I was embarrassed but defensive. How dare he criticise my £399 plus VAT. I was a member of the computer age and this guy made me feel as if I'd bought the last pair of loon pants before the hippy look went out of fashion.

Some hasty research revealed that my PCW had a strong lineage and impeccable parents. It is MS/DOS, the operating system so beloved of PC owners that is the bastard son of CP/M. When IBM introduced their first PC, they commissioned Microsoft to write the operating system. The only workable system at the time was Digital Research's CP/M and many consider MS/DOS to be a system with all of the bad things and none of the elegance of its predecessor.

While all the air-heads run around warbling about how many megabytes Pratto/CAD takes to run and how they wouldn't be without their

maths co-processor, they seem to be missing one of the fundamental points of having one of the wretched things.

I bought my PCW because I had a job to do and it was the most cost-effective way of doing it. It was a good text engine, with a printer included, and it gave me facilities to do a lot more than a typewriter ever could.

The first meeting with the techno-snob was like a gauntlet thrown down with a maiden to defend.

Maiden's honour

Joyce, as the PCW is often known had had her honour questioned and it was up to me to defend it. Poor Joyce spent the next two years having her ports and circuit boards prodded and poked in the name of her honour. It was certainly worth it and the list of applications, peripherals and twidgets that hung from her edge connector and graced the screen grew and grew.

These things do get out of hand and it wasn't long before I was deliberately looking for impossible tasks like a demented rock-climber looking for that sheer crevice with no foothold.

The LocoScript disc and manual were carefully preserved in a time capsule (third draw down on the right) and out came the dreaded CP/M from the box of dangerous things in the locked room in the basement. Only fractionally more unstable than second hand Plutonium, this fizzing little three incher went into the drive.

A whirr or two and the A> prompt attempted to lull me into a false sense of security. There's a limit to how long the A> prompt can hold the attention so I read some manuals. Still no wiser I bought a couple of public domain discs from a computer fair in Mevagissey and I was hooked.

Not hooked by the fascinating operating system, however, but by a slightly plump, red-eyed ex-hippy in his thirties who'd spied my purchase. His scruffy sweatshirt proclaimed an affinity to HAL, the computer from 2001 (who's initials are only one move away from IBM) and he stopped chewing a pie long enough to introduce himself.

He was the Sysop (system operator) of a local bulletin board and had just changed over from a Zijnnikkik 47 (that's what it sounded like) to a PCW.

An hour in his company had me scurrying off to buy a serial interface and modem. Like all good computer fairs, there was everything I needed to buy and I left with modem, serial port and a promise of free communications software from the Sysop who turned out to be called Tharg.

Now I could use my Joyce to sneak up on the PCs via the phonelines. They wouldn't know that it was a nasty Amstrad PCW tickling their serial



Fellow computer journalist Keith Pomfret: "Out came the dreaded CP/M ... only fractionally more unstable than second hand Plutonium, this fizzing little three-incher went into the drive."

bits. The software that I was given was called MEX (this is a contraction of MODEM EXCHANGE). With this, I was promised that I need never buy software again. Plug the modem into the telephone lines and download free software from all over the place.

Slow lane modem

As always, would that it were that easy. That first modem was a slow little sod, chugging over at a desperately relaxed 300 baud or so. This meant that a 60k file could take up to half an hour or so to download.

Using the calculator, I was able to work out that my software budget for the quarter had been doubled to an arm and three quarters of my left leg. Payment had transferred from the local computer shop to the telephone company in much the same way as if you start to make all purchases via a credit card.

Whoever said that there's nothing like the prospect of imminent death to concentrate the mind was undoubtedly right, but in these days of huge profits for Telecom, it might be more relevant to say that an impending phone bill does the same job just as well while, at the same time, relaxing the slushy bits.

My first four figure phone bill left She Who Must Be Obeyed thinking that the kids had discovered chatlines; I donned the cowardly hat and stood there shaking my head in an expression of mock puzzlement. Some strong medicine was urgently called for at this point.

A faster modem was ordered and the phone was officially declared to be out of bounds, as far as the computer was concerned, until after 6 pm each evening. The kids began to wonder what all the fuss about chatlines was about, went out and discovered it for themselves; we ended up with our second four figure phone bill.

I was forced, temporarily, to direct my attentions elsewhere. But, inevitably, as the days went by, the odd peripheral or two would find its way home, the occasional disc would scream "Buy me" as I passed a shop-front and the insecurities posed by the threats of the techno-snob slowly receded into the distance ... ●

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"BUT I'VE ALREADY GOT A WORD PROCESSOR."

FOREWORD isn't a word processor, nor is it intended to replace one. Word processors are tools for presenting text on paper, and most of them do this very well. FOREWORD is designed for the stage before this, the creative stage of writing where your ideas are still too vague or unstructured for normal word processing. That's why we call it a "word pre-processor".

FOREWORD is specially designed to stop you getting bogged down in detail as your document grows. With a word processor, as soon as your text takes up more than a screenful you start losing that all-important "big picture" – the overview of your work that's the key to good writing. FOREWORD's powerful "Hide" and "Show" functions give you back that overview. Even when you've typed in thousands of words you can still get a clear picture of your piece at the press of a key, collapsing the on-screen document down to its bare bones.

FOREWORD also shuffles ideas around far better than a WP can. The "Move" function lets you pick up an idea and move it wherever you like within the document, regardless of how much text the idea comes with. There's no block-marking involved: whether it's one sentence or a hundred, you can pick an idea up or put it down again with a single keypress.

"SO WHAT HAPPENS WHEN I'VE CREATED MY TEXT?"

Because FOREWORD doesn't deal with typefaces or layouts, you'll need to get your finished text into a word processor or DTP package before you can present it attractively on paper. Normally, transferring data from one program to another is a fiddly, time-consuming business, but FOREWORD makes the task quick and easy.

For one thing, there's no need to quit FOREWORD to use your word processor. FOREWORD is a pop-up program: it can share

memory with Locoscript 2 or CP/M, hiding "in the background" until you summon it. Just hit SHIFT-ALT-EXTRA and in 1 second you'll be looking at the FOREWORD editing screen. Hit SHIFT-ALT-EXTRA again and 1 second later you'll be back in CP/M or Locoscript 2, exactly where you left off.

Also, you don't have to save ASCII files in FOREWORD and import them into your word processor. FOREWORD's "Transfer" function can force your text directly into a word processor document as if you were typing the words yourself. (Of course, if you find Transfer's 150-200 words per minute a little slow, FOREWORD is quite happy to save your text as ASCII: it supports two different kinds, plus a special format for WordStar and NewWord users.)

SOUNDS COMPLICATED?

Don't worry: FOREWORD has a carefully designed menu system you'll be able to master in minutes. What's more, FOREWORD supports all those special-purpose keys you're used to, like UNIT/PARA, WORD/CHAR and LINE/EOL. CUT and COPY trigger lightning-fast block operations, EXCH/FIND gives you speedy search and replace functions, and PTR summons the Printer menu. (We couldn't find anything for the RELAY key to do: FOREWORD reformats its paragraphs automatically, as fast as you can alter them.)

FOREWORD's even easy to install: it comes on a self-booting disk you can back-up and use immediately. No need to copy files or fiddle with PROFILE.SUBs – just switch the machine on, pop FOREWORD in the drive and it'll load automatically.

VITAL STATISTICS:

FOREWORD has a fast, accurate word-counter, can edit up to eight documents at once, and has no maximum file size. It takes a minimum of 112K of RAM, and a maximum of 2 Mbytes – the most a PCW can be fitted with.

FOREWORD is fully compatible with Locoscript

v2.16 onwards (including LocoSpell, LocoFile etc), and with all legal CP/M programs. To run FOREWORD you'll need a PCW with at least 512K of memory. FOREWORD supports all SCA and Isenstein memory add-ons. For use with FLIPPER 2 PLUS, and with non-legal CP/M programs like Mini Office and Microdesign II, extra memory is essential. (FOREWORD won't work with earlier versions of FLIPPER, but you can upgrade these for free if you order FOREWORD at the same time.)

FOREWORD DOES NOT SUPPORT:

- File passwords and file time/date stamping;
- Foreign-language keyboards;
- Hard drives;
- Printers on external serial/parallel interfaces (though the 9512's built-in parallel port is fine);
- Single-density or single-sided B: drives (though 720K 5 1/4" or 3 1/2" drives are okay).

DON'T FORGET:

We still sell the absolutely essential FLIPPER 2 PLUS. This is the only utility that lets you split your PCW between CP/M and Locoscript 2 (or between two lots of CP/M – or even between two lots of Locoscript 2, if you've got the memory).

In as little as two seconds FLIPPER 2 PLUS can whisk you from one side to the other, without losing your place. Why reboot every time you need to get between CP/M and Locoscript 2? FLIPPER 2 PLUS can do the job quicker and better. (FLIPPER 2 PLUS requires at least 512K of RAM, and is fully compatible with SCA and Isenstein memory add-ons.)



● A carefully designed menu system makes FOREWORD easy to learn and use.



● Writing for print? Then you'll appreciate FOREWORD's fast, accurate word counter.



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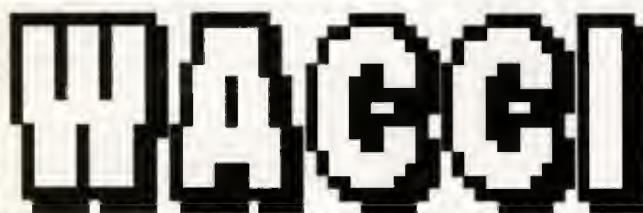
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Hard and Fast

Networking is currently in vogue. But what is it and, more importantly, can your PCW do it? To find out, Karen Donaghay looks at the multi-user facility of the Cirtech Diamond hard disc

It is hard, fast and very nearly silent. To save arguments in the office, it can play host to more than one user at any given time; in fact, a maximum of seven users can enjoy its benefits simultaneously. There seems to be a multitude of reasons why a Diamond disc could be a PCW owner's best friend. But, what is it that makes a hard disc such a bright idea, and why would you want to share it?

The main advantages of a hard disc stem from its far greater size. The ease and comfort of having all your files in one place, at your fingertips, is something which most PCW users have yet to experience. Compared to an A drive disc, a 40Mb hard disc can store over 200 times as much information, making the use of floppy discs almost completely redundant (you need them purely as a backup).

Not only does this allow you to beat once and for all the nuisance of those mysteriously vanishing files (you know, the ones which seem to sink without trace into the Bermuda box of floppies) it also releases you from the constant chore of changing discs, and switching from one current drive to another. Making the move from lots of floppy discs to one hard disc is a simple concept, but one which is capable of revolutionising your working habits.

The Diamond disc is also extremely fast, beating even the internal drive M in terms of speedy access. For programs which need to refer back to the disc at certain times this is an appreciated bonus.

Get in the network

This all sounds like such a good idea that you may be wondering why anyone bothers with floppies at all. Well, the truth of the matter is that, in general, diamonds don't come cheap, and a Diamond disc is certainly no exception to the rule. A 32Mb hard disc from Cirtech will set you back £465, the 48Mb disc costs £545 and the £100Mb disc goes for a hefty £845.

That is why it is nice to know that, despite being as hard as nails – or even as hard as diamonds – the Cirtech disc does have a split personality. This review takes a closer look at the caring, sharing Diamond – the disc whose facilities (and pricetag) can be shared with

your friends and colleagues.

A computer network is about linking computers together – in this case, to the same hard disc. It is known as a multi-user system. It is precisely this facility which makes the drive an even more attractive proposition financially-speaking. If the disc can be shared between friends and colleagues, then the cost becomes proportionately less prohibitive.

There is one small snag to this cosy scenario. The friend in question must be a very close friend. No, we're not talking about your sole confidant in the universe, merely that there is a restriction in the length of cable which can pass from one PCW to another.

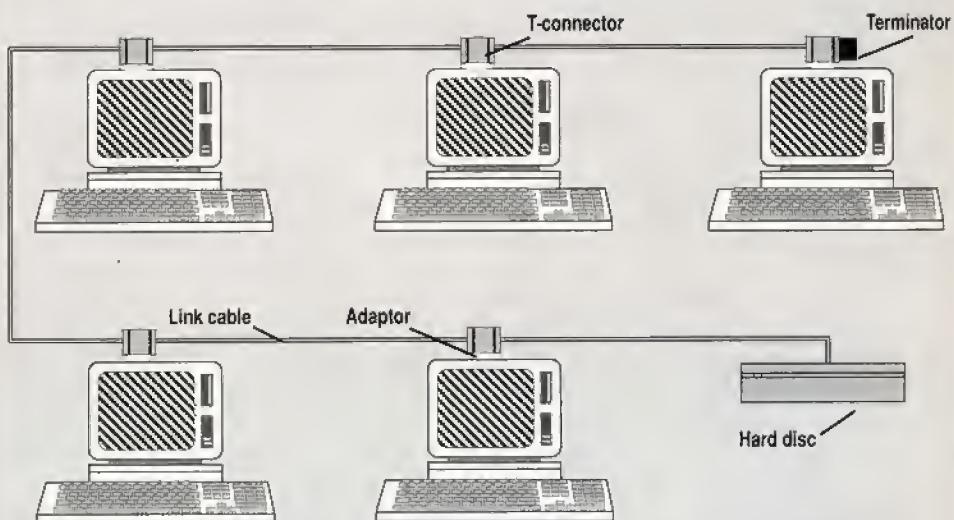
The cable runs from the hard disc to the first computer, from the first computer to the second – and so on. The total length of cable cannot be more than 6 metres. This has the knock-on effect of ensuring that the more disc-sharing friends you have, the closer they need to get. In an office situation this may be simply a case of rearranging the desks slightly.

So what is sharing a disc actually like? First, be reassured: you won't have to nag your messy co-users not to leave their files lying around all over the place. This shared space is more reminiscent of a group of self-contained flats – or partitions. Each hard disc can be partitioned into self-contained units. ➤

Protext and survive

Protext has an annoying habit of looking to check that both of the original A and B drives have a disc in. Fortunately, it is not fussy; if you want to run Protext from the hard disc, then formatted blank discs in the original drives will suffice.

How to set up a network



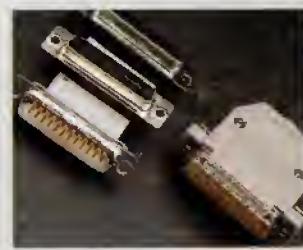
A hard disc is too good not to share. Cirtech can provide everything you need to set up this multi-user system.



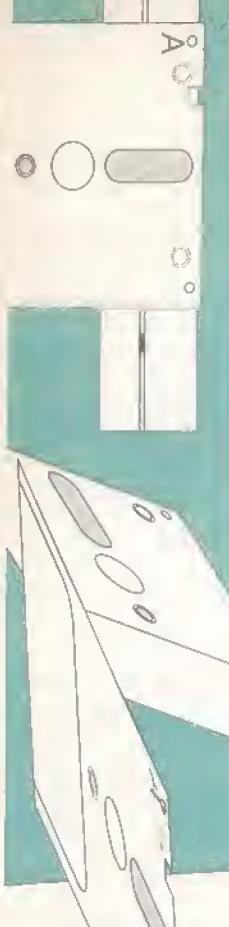
The link cable runs between PCWs. They come in different lengths, but the total length of cable from the hard disc to the last PCW cannot be more than 6 metres.



The T-connector may be a three-way junction, but there is only one way to put it together. The last PCW T-connector is sealed with the PCW Terminator.



In order to connect the PCW itself to the network, the Diamond Disc Adaptor is plugged into the long expansion connector at the back of the machine.



A chunk off the old block

A block is the storage unit for discs and is 1 or 2k on the 3 inch drive. Cirtech have expanded this to blocks of 16k for the hard disc. Watch out for space wastage when saving lots of very small files.

so that, effectively, each user has their own disc drive. The more users per disc, the less space each user will have.

From box to boot-up

Installing a multi-user system may sound high-tech, but what actually arrives in the package is far less intimidating. Apart from the drive itself, the other components of a multi-user system come encapsulated in polythene packages, one for each user. Each of these packages consists of a cable, a T-Connector (the data equivalent of a T-junction), and an adaptor which allows you to connect all of this to your PCW.

The first PCW is attached to the drive itself; then each subsequent PCW is attached to the last. Each adaptor has an ID number, which enables the network to distinguish between the separate machines. It is important to have the adaptors in the right order, and attached to the machines in the correct way, but there are no other obvious pitfalls.

The next step involves running through the installation program supplied with the hard disc. This is potentially a hazardous area, but don't expect any chatty explanations in the documentation — Cirtech have not been particularly forthcoming in this area. They only provide a small pamphlet with the disc, four pages of which are dedicated to the setting up a multi-user system.

The actual process involves two stages, firstly partitioning the hard disc, then transferring information from each PCW to its own partition. The aim for most people is to have everything they need on the hard disc, including CP/M and LocoScript. Each PCW can then boot-up automatically from the hard disc, with a choice of either CP/M or LocoScript as the starting point. This is a definite feather in the cap for Cirtech, as no one else can offer this kind of facility on a hard disc.

Once installed, we found the hard

Watch this space

USERS	DIAMOND 20	DIAMOND 32	DIAMOND 48	DIAMOND 100
1	20,864	32,113	48,497	-----
2	10,432	16,056	24,248	48,497
3	6,912	10,682	16,122	34,931
4	5,184	7,995	12,124	25,149
5	4,160	6,423	9,699	20,906
6	3,456	5,308	8,061	17,433
7	2,944	4,588	6,881	14,942

A multi-user disc is divided into partitions of equal size, one per user. This table gives you a guide to how much space each user would get in kilobytes. Compare this to the size of an ordinary A drive disc with only 173 kilobytes and we're talking mega! In fact the Diamond 100 is so large that it can only operate with more than one user.

disc very easy to forget. For each user, the hard disc will consist of drives A and B. The existing PCW drives can be used in exactly the same way as before, except they are now called C, D (if you have two drives), and M. One major change is that the hard disc does have a File Manager which produces a list of executable files (all .COM, .SUB and .PRL files) on disc. This includes all CP/M utilities and programs and many of these can actually be run from this menu. It doesn't include data files and text files: these can be listed using the more familiar DIR command.

The hard life

When dealing with a drive of this size, it helps to keep files in an orderly fashion. The best way to organise them is by maximising the use of groups. Each of the drives is compartmentalised into eight groups — 0 to 7. A file can be stored in any one of these and different groups can be treated as separate entities. If each group represents a different area of work, this simplifies the process of finding files. The default group is always 0, but you can easily change to another group in both CP/M and

LocoScript environments.

Hard discs are impressively reliable, but backups are needed in any computer environment. Of course, it is possible to make backups by simply saving an extra copy of a file onto a floppy disc. However, when dealing with such a large number of files, the CP/M ability to archive files really comes into its own. The CP/M command for copying files — PIP.COM — can be used to save onto a floppy disc only those files which have been modified since the previous archive.

Is anybody out there?

Multi-users are not likely to bump into each other too often. Usually you are not even aware that the disc is being used by anyone else. The only time that the multi-user aspect becomes apparent is when a file is transferred from one user to another. All of the files are automatically protected against transfer, but there is a simple command which allows you to change the access rights to your own file. Any other user can then copy the file over to their part of the disc.

This brings us to the wider question of general security. With a hard drive, anything which is private needs to be protected. This can be achieved using the CP/M SET command which can give passwords to individual CP/M files. This is a standard CP/M utility but, as with the group facility, it becomes far more useful to the owner of a hard disc. Unfortunately this password facility doesn't apply to LocoScript files so anything confidential will have to be saved onto a floppy.

It is very easy to adjust to using a hard disc. The Cirtech Diamond disc is certainly one of the most forward looking developments in the market. It is very fast and the only one which allows you to boot up from the hard disc. The cost is going to be the main consideration for most people, and since the Cirtech Diamond is the only one on the market which allows multi-users, this could become the decisive factor for many people. Spreading the benefits softens the blow, and a speedy, efficient bunch of users could be the result. ●

Question time

Q I already have a hard disc set up for one user. I now want to extend it to a multi-user system for two users. What happens to all of my files stored on the hard disc?

A When the disc is partitioned the whole disc is completely deleted. The only solution to your problem is to back-up all of your files onto floppy discs and transfer them back once the partition is in place.

Q I have heard that hard discs cannot be moved because they are easily damaged. Is this true?

A Yes and no. The hard disc has two read/write heads which float just above the surface. If the disc is moved while the heads are still floating, the disc can be damaged. The Diamond disc automatically parks the heads safely away from the disc surface when they are not in use, so when the disc is switched off, it is safe to move.

Q My PCW and I have been happily working together for years. I now want to invest in a hard disc. But what if I decide at a later date to change to another type of computer. Won't I have wasted an awful lot of money?

A Fear not! Many hard discs available for the PCW (including the Diamond disc) can be adapted at a very reasonable price. Check out the finer details before you buy.

Q I would like to be able to set up a multi-user system on my Diamond disc but some of the machines involved are PCW8256s and one is the PCW9512. Does this make any difference?

A No, not at all. The good news is that the installation discs come in two varieties, one for the 8000 series and one for the 9000 series. During the installation process don't forget to change to the 9000 series disc when installing the 9512 machine.

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Concerted Efforts

Sophie Lankenau went to London to talk to the Vivaldi Concertante and found the humble PCW engaged in a solo performance of a very different kind

Private function

As well as performing 'sponsored' concerts, the Vivaldi Concertante may also be engaged to play at private functions. For details on how to book the orchestra, and information on forthcoming concerts, telephone (0707) 50735 or write to Audrey Banker at 'Allegro', 35 Laurel Avenue, Potters Bar, Hertfordshire EN6 2AB.



Mary Pilbery, one half of the founding team of the Vivaldi Concertante, engages the aid of a PCW 8256 in her daily pursuit of artistic excellence

When you are dedicated, the clock doesn't matter; age is not important, the time it takes to organise things is irrelevant – the only concern is to do what you do, and do it well." If these sound like the words of a serious professional, you are not mistaken. For Joseph and Mary Pilbery, founders and driving force behind the Vivaldi Concertante, dedication is the key element which allows their work to survive, often in the face of financial adversity. Their aim, keeping the music of Vivaldi and other composers alive, involves a gruelling schedule for the couple – and their PCW 8256.

The Pilberrys formed the Vivaldi Concertante in 1983 in response to a lack of regular employment at that time in music. Joseph and Mary Pilbery were conductor and oboist respectively in the

same orchestra when they decided to set up business by themselves. Their first concert was held at the Queen Elizabeth Hall in London, in aid of the Italian hospital. Indeed, with Vivaldi in the title of their orchestra, almost 90% of the concerts given feature the work of Italian composers. Patrons of the Concertante are the Italian Ambassador, Lady Rothemere, and Giuseppe di Stefano. The Pilberrys' love for Italy even extends into their home; their house in Hertfordshire is called 'L'Allegro', while their family dog rejoices in the rather unlikely name of Paganini.

Sponsor an oboe

When they are not performing, the Pilberrys spend the majority of their time promoting the orchestra, and looking for sponsorship. Naturally, with their strong loyalty towards Italy, business sponsors

have included several prominent Italian concerns. Pirelli, the tyre manufacturers, have supported the Concertante, as well as car specialists Alfa Romeo. "Sponsors realise that when they back us, they are going to enjoy enormous exposure and publicity, at major venues around London and elsewhere in the country," explained Joseph. "We have played almost every important venue in London – the Royal Festival Hall, the Albert Hall, the Queen Elizabeth Hall and the Barbican."

As well as playing in the orchestra (often performing solos), Mary takes care of the organisation and administration behind each concert. This she does with the help of assistant secretary Audrey Banker and a very active PCW 8256, purchased by the Pilberrys four years ago.

"We realised that we were going to have to invest in some kind of computerised 'system' to help us run the business," Mary told us, "and when we looked around, the PCW seemed to be the best value for money machine on the market. Unfortunately, everything we do is completely dictated by the limited resources available to us. In this case, though, buying relatively cheaply did pay off – the machine is very easy to use, and we would be utterly lost without it."

Like so many other 'small businesses', the Vivaldi Concertante is run from the directors' home. "What you see here" said Mary pointing to a crowded desk in the Pilberrys' living room, "is our office. Everything to do with running the orchestra is planned and carried out here – and the Amstrad is at the centre of it all."

Mary and Audrey use LocoScript I for the bulk of their work. "I am the world's worst typist," joked Audrey, "so the fact that mistakes can be corrected so easily on the machine is a great help to me."

Striking a chord

When a concert is being planned, the burden on Mary, Audrey and the PCW is immense. Letters are prepared in LocoScript to send out to potential sponsors. There are also media plans and lists of concert venues available to sponsors to send out, so although a template can be used for the various formats, the content of the written information will vary.

The printed material, such as posters and concert programmes, is done elsewhere, as colours are involved. However, Mary and her son Richard have been experimenting with Masterpaint to assist in the design of their written output. At the moment, all general correspondence is produced using LocoScript and the 8256's native printer. "In all the time that we've had the PCW," Mary told us, "the only thing which has ever gone wrong is the printer – and then it was only the springs on the bail bar."

The company produce a magazine

every two months which is distributed to a small group of people who have become known as the 'friends' of the Concertante; it is aimed at helping young musicians, just starting out in their careers, and is put together by Joseph, Mary and Audrey on the PCW. The printing and production of the magazine is done externally. Again, the magazine is something which the Pilberrys would like to pass over to someone else, so that they could be freed to concentrate on other aspects of the business. The perennial lack of resources makes this impossible.

When a concert is booked, the Pilberrys recruit musicians for the orchestra from various sources. "I would love to work with the same twenty or so people every time," says Joseph, "but it is just impossible to employ that number of musicians on a permanent basis. We do not even have enough time or resources to rehearse together as much as I would like."

Spreading the word

Once the musicians have been found, Mary issues a contract to each one, compiled using LocoScript. "Sometimes, time is very short," she told us. "Once, we had a phone call from the BBC asking us to perform live on Pebble Mill at One. We had less than a week to arrange the performance, including the recruitment of the musicians."

As well as contracts for the musicians, Mary also has to compile draft versions of the concert programmes, and organise the copy for advertisements in the national press. Where sponsors are involved, Mary and Joseph



The Pilberrys take a few moments out - with Paganini - to be photographed here in the garden of their Hertfordshire home

have to arrange for the maximum possible exposure to ensure that everyone is kept happy. The Concertante now has contacts in America, Australia and Italy, so the sphere of publicity for concerts can be very broad.

The Concertante recently gave a performance at Apsley House, home of the Duke of Wellington. They were the first orchestra to be invited to play there since Rossini and Strauss's performances over 150 years ago. This is not the only time that the Vivaldi Concertante has made history; they were the first orchestra engaged to play on the Orient Express, travelling from London to Venice. Nigel Kennedy has played with them, as has one of their patrons, the famous tenor Maestro Giuseppe di Stefano, who came out of retirement to sing with the Concertante at a charity concert in aid of leukemia.

Not all the venues have been quite so prestigious; concerts at Wormwood Scrubs and Pentonville Prison might not, perhaps, have attracted the major sponsors - but the performances were

extremely popular. "I can only compare the response of the people there to the last night at the Proms" said Joseph.

The show goes on

After every sponsored concert, the accounts have to be done. This task falls to Mary, the PCW, and Cracker II. "I have to enter in all the outgoings - which usually exceed the incomings - and then work out whether or not we have broken even or made a profit or loss. I then have to handle all the invoicing, and ensure that the musicians are paid."

The Concertante has a program of events booked until the end of the year, including a recital at Harrods in Knightsbridge. "All the best bookings and the best opportunities come about by being in the right place at the right time" said Joseph. "We are currently looking for one major sponsor, someone who will stay with us and give us the kind of support which Pirelli and Alfa Romeo, and numerous other companies have given."

Joseph and Mary will continue their work with the Concertante with the same level of enthusiasm and commitment. They are a truly dedicated couple, whose love for their work is constantly in evidence. As we watched a recording of the Concertante's performance on Pebble Mill, with Joseph conducting an extract from Vivaldi's Four Seasons, and Mary as the oboe soloist, Joseph is enraptured. "Such beautiful music" he says, "such talent". At 59, he has no intention of retiring. "I'll never retire," he laughs. "It's something which the government invented, and I have certainly no intention of doing so". ●

Spare us a tenor

There aren't many people who can lay claim to having strangled Pavarotti, but Joseph and Mary Pilberry have. Don't worry; the well-proportioned tenor was more than able to withstand the attack, set up as a press photograph following a concert at Wembley Arena.

Orchestral manoeuvres

Joseph Pilberry was born in London, and began his musical career as a violinist. He studied conducting at Trinity College, and went on to conduct the London Philharmonic Orchestra and the London Mozart Players. He has conducted all ten of Mahler's symphonies, and has an extensive orchestral, choral and operatic repertoire. His devotion to Italian composers and his work in encouraging young musicians has recently earned him an honour from the region of Friuli in Italy.

All his energy now goes into the Vivaldi Concertante. "It is a hard struggle" he says, "I often get up in the middle of the night and wonder how we will manage to continue. But I will never give it up." He is a shrewd and intelligent man, who has no illusions about the struggle for sponsorship. "It is so important to meet sponsors, so that we can both determine what each other needs out of the relationship. For me, it is not enough just to like music; if you like your job, you



Joseph Pilberry of the Vivaldi Concertante: "I will never give it up."

work from nine to five and then you are happy to be going home. If you love your work, then you never leave it alone."

Joseph is a great supporter of charities, and has conducted orchestras on numerous occasions for charitable causes. With such an extensive repertoire behind him, there can be few things left for Joseph Pilberry to achieve. "If some-

one told me that I could only conduct one more piece, then it would definitely be *Madame Butterfly*. I haven't done that yet, and I would love to. I would also like to get an orchestra together and devote it to Mahler's work - maybe 'The Mahler Philharmonic' with hundreds of players!" Does he have a favourite piece of music? "Verdi's *Requiem*" came the instant reply. "There is no question about it!"

Joseph's philosophy about his music is straightforward. "People laugh at me because I am almost fanatical about music. I believe that you almost have to be a fanatic to achieve things. I am still learning, as well - you have to treat old works like a new love affair, and that is how you will find out new things about them." The PCW, however, is not something which Joseph will be learning more about. "I know that it is a marvellous machine, my son and wife tell me that it is." So why doesn't he put its talents to the test? "It's far too complicated for me to understand!"

No strings attached

The Orchestra's work frequently takes them abroad. Joseph recalls a concert in Paris. "I was going over to conduct *Carmen* and I was assured that all the instruments would be there waiting for us. When we arrived, I was told that there were no cellos. So we performed the opera without them; I can assure you, playing *Carmen* without strings isn't easy."

USER INDEX

The following pages contain an alphabetical index of all the features, reviews, listings, tutorials and tipoffs that have appeared in 8000 Plus over the last twelve months - from issue 37 to issue 48. By the side of each entry, we've included the number of the issue in which it appears (prefixed by a # sign), the date of that issue, and the page number. Back issues of 8000 Plus are available from The Old Barn, Brunel Precinct, Somerton, Somerset, telephone (0458) 74011.

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Book look

ALAN SUGAR - THE AMSTRAD STORY

by David Thomas

£14.99. Published by Random Century
Tel : 071 973 9750

Readability = Good

When Alan Sugar was invited to give a lecture on entrepreneurship to students at the City University Business School, he was more than happy to reveal the secret of his company's success. "Amstrad culture is all about realism, swift thinking and decision-making without committees...if you have a winner, thrash it to death. We work on the philosophy - pile 'em high and sell 'em cheap."

Crude though the philosophy may sound, it is the formula which has transformed Alan Sugar, and Alan Michael Sugar TRADING into the multi-national, multi-million organisation which it is today. David Wilson, a former electronics correspondent for the Financial Times, has taken on the task of documenting the progress of Amstrad since the company's inception in 1968. "Alan Sugar - The Amstrad Story" is the result of his research.

Anyone can't do it

Twenty two years of commercial activity provides a wealth of material for an author producing the biography of a company. And the book is, essentially, a company biography; it has been compiled with the help of certain key people who have surrounded Sugar and Amstrad since the beginning. The most overwhelming feeling is that Alan Sugar is Amstrad, and Amstrad is Alan Sugar; far from being the detached figure-head of a company which could easily rely on others to exist, Sugar is as much involved today with the nuts and bolts of his organisation as he was in 1968.

The popular belief about the rise of Amstrad is based on the 'Backwoods Boy becomes President' ethos of the American political scene in the middle of this century - the theory being that no matter who you are, if you have the guts and determination to succeed, then nothing will stand in your way. The only difference is that this state of affairs was absolutely the case for Sugar and Amstrad.

Looking after number one

In fact, the level of commercial success attained by Amstrad in the nineties couldn't have been further from its creator's expectations when he began. It seems, from Wilson's account, that the 21 year old Jewish boy from Hackney started his company as a reaction to being exploited by previous employers. This led to Sugar's realisation that selling was a talent which could only bring him financial reward if he was his own boss. "It was clear that if I ever wanted anything, I had to do it for myself, simply to improve my lifestyle," says Sugar, "so that's what I did."

He entered into his first serious money-making enterprise with a friend, Malcolm Cross, who was a television engineer. They bought broken TV sets in batches, cross repaired them, and Sugar went on to sell them from his bedroom, claiming to unsuspecting customers that the televisions were an unwanted gift to the family.

Selling second hand televisions was not what launched Amstrad on its formidable success course - although the principles involved were largely similar to those of the company today. As Wilson explains, Amstrad's approach was to

The Amstrad Story is out; Sophie Lankenau reviews a new account of the man and the company

"design cheap and simple products by cutting out features which consumers do not really want...and drive prices down by manufacturing in large volumes for a mass market".

The road to glory

It is difficult to isolate the turning points in the Amstrad evolution from Wilson's account - but not because they are unclear, or poorly documented. The Amstrad 'experience', as told by Wilson, seems to follow an almost haphazard, impulsive course, where practically every event was cataclysmic. It involved a constant 'hands on' learning process, driven by the tremendous enthusiasm and thirst for success of its creator.

The first of the company's products to make the electronics industry sit up and take notice was the 'Tower system' hi-fi. This was a one plug, 'stacked' music system, which resembled the hitherto standard arrangement of turntable, cassette deck, amplifier and tuner, but existed within one box - and at the budget price of £179. Of the 850,000 hi-fi units sold in 1982, Amstrad was responsible for a third of them.

It was not until 1984 that the company broke into the computer market, with the launch of the CPC464. Later that year, Sugar was sitting on an aeroplane to Hong Kong when he had another idea. He grabbed some paper from his technical director, and began sketching.

The result was a computer based on the 'one box' theory of the Tower system; the monitor screen was the size of an A4 page on its side, and the printer was moulded in to the machine. Sugar wanted it to be a dedicated word-processor, and code-named it 'Joyce' after his secretary until it was ready. When it was released in 1985, it came out from underneath its pseudonym; the PCW 8256 had arrived, and it was a resounding commercial success.

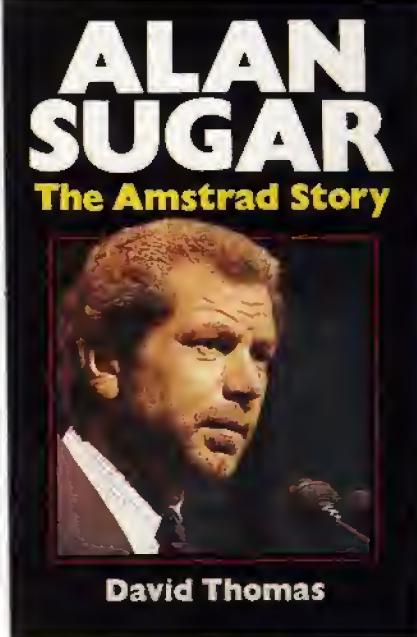
Bitter Sweet

You will be relieved to hear that the rose coloured spectacles are discarded from time to time in Wilson's book. Chapter 16 tells of Amstrad's damaging 'Year of Disaster' in 1989.

Pre-tax profits fell by 16 percent to £75.3 million, and a total of £114 million was lost in sales because Amstrad did not have enough machines to meet demand. Following this financial set back, there was to be a confidence crisis in the PC2000 range of computers. Technical hitches, and retail prices rising beyond the range of Amstrad's usual 'target' audience almost sent the company limping into the nineties.

There has always been a mixed reaction from the media about Alan Sugar and Amstrad; public opinion sways between admiration and indignation towards a man who has achieved so much. Wilson describes Amstrad as "the high priests of Britain's new religion - the religion of consumption."

Whatever your personal view, there is no denying Wilson's statement of fact in the early chapters, that "Amstrad moved computing out of the data processing departments and into the studies and spare bedrooms of Britain." The book is a well-written and carefully researched insight into exactly how this was done, and will be of interest and inspiration to entrepreneurs everywhere. ●



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Photo Finish

Keeping track of a photographic collection is exacting work; Tony Hart shows you how – with the help of Mini Office's database – you can reduce several minutes' searching to just a few seconds

2 Creating a record



All that is then required is to load the database module of Mini Office Professional. Select the **Alter Structure** option from the program's main database menu and press [ENTER]. Mini Office, not surprisingly, will report that **No structure has been defined**. Simply press

[A] to [A]dd a field. The Layout screen will then be presented where the number, name and type of each field must be defined. The record we are creating will consist of the three fields already mentioned –

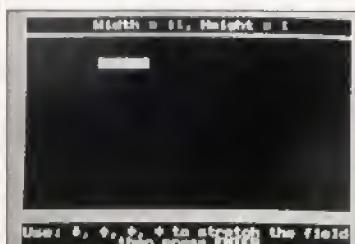
Slide – a 6 character reference for each slide.

Description – a line (55 character) description of the slide.

Keywords – a 55 line text string of pertinent keywords.

The cursor will be positioned at the bottom of the screen after the **Enter Field Name** prompt. Type **Slide** and press [ENTER]. The field name will appear in the second column and the third will show the default field type – **Alpha**. This is short for Alphanumeric and simply means that the kind of information which the field will contain will be treated as strings of characters – which may be numerals, letters or punctuation. Use the cursor keys on the bottom right hand side of your keyboard to cycle through the different field types.

3 Designing the screen



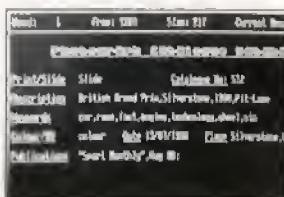
The Layout or "painting screen" is then displayed on your screen. This allows you to position each field, one by one, on the screen and to set its character length as follows. First of all, highlight the **Place** icon (you can see this bar at the bottom left-hand

corner of your screen) and press the [ENTER] key. Next, use the cursor keys to place the highlighted area in the position you would like the field to occupy in the finished record. This doesn't have to be a high-precision task but don't forget that you have to make room for the field prompts (ie their names) on the left hand side. Press [ENTER] to 'fix' each placing.

You will now be prompted to set the character width for each field and again this is done with the arrow keys. Since the first one, at least, will be a unique reference number for each slide or photograph, set the width to 10 characters and press [ENTER].

Whatever the subject, it's nearly always worth slightly overestimating the average field length. It saves you coming up against problems later on when inserting text. You will be returned, once more, to the Alter Structure screen where, starting with the Add field command, the process will be repeated for the second and third Description and Keywords fields. This completes the format design of your Mini Office database record.

10 A more complex record



If your database design goals are oriented more to storing and cataloguing your photographic slides rather than providing a fast search for a particular photographic feature, then the Mini-Office screen approach to designing the database lends itself to an easy way of designing a more comprehensive structure. Here's an example of a 'cataloguing' database design which you can see has many more fields per record thus offering greater scope for processing the file. But although this database design will be more flexible and informative, it will also take you longer to type in the records; since each record will have more fields, it will have space for fewer records than a simple design. The **Alter Structure** screens indicate the number of free records and the size of the laid out record. This record size is 217 characters with a record storage capacity of 1593 records. The simple record, on the other hand, has only 116 characters – but there's room to store 2939 of these smaller ones.

1 In the beginning ...

A database is nothing more than a computerised filing cabinet. The difference is that it – the file – is connected to an extremely fast computerised look-up system so that tasks which would normally take the human eye and fingers minutes to complete, can be done in seconds – without boredom or carelessness setting in. Mini Office's database module is just such a tool.

As with any utility or tool, a database has to be designed and deployed correctly, otherwise it will not be very effective. You must first define the objectives or benefits of using the database, then design the file structure and screen layout around these objectives. It's then simply a question of feeding in the data and using the database. Let's take the example of the photographer or writer/photographer who has literally thousands of slides or prints. The objective of this particular database example will be to provide a fast and accurate tracking system for photographs with specific features. The most notable benefit will be the saving of

4 Adding the field names



Back at the Alter Structure screen, type [T] to add the explanatory text for each field. The "painting screen" will again be displayed, ready for the text to be entered and positioned to the left of each field.
1) Highlight the **Add** icon at the bottom and press [ENTER].
2) Then highlight the **Text** icon and press [ENTER].
3) Type the text – ie, **Slide** – and press [ENTER]. 4) Now position the text alongside its relevant field using the cursor keys; [ENTER] again.
5) Repeat the last three steps for the two remaining fields, i.e. **Description** and **Keywords**. This screenshot shows the completed layout screen. Now [EXIT] to return to the database menu.

If you look around your home or your place of work, it's likely that somewhere you'll find a box, cabinet or file of some kind containing a great deal of information. For example, a photographer, or a writer who also uses photographs, will certainly have a collection of slides or prints which have been gradually compiled over the years. Even a business operation will have a large collection of files for existing and

prospective customers. Let's suppose that a publisher calls upon the photographer to quickly deliver a portfolio of slides which could lend visual support to an article which is concerned with the environment. Even if the photographer was well organised, it could take quite a while to search for slides or prints in his or her collection which portrayed, directly or indirectly, such environmental issues. He or she would probably be

using some sort of thematic cross-referencing system on, say, 'green', 'sky', 'smoke' or 'pollution.'

How much easier it would be if these themes or keywords could be submitted to an automatic file which could then list all the individual photographs or slides in which they were featured. This month, we are going to show you, in 10 simple steps, how to do just that using Mini Office's database module.

9 Formatting the printout



Edit Report/Label format command provides the facility to print only the information you need and in the way you want it to be presented. Here is the formatting screen that has been set up for this example with the first two fields of the record Slide and Description indicated as F1 and F2 (Field 1 and Field 2).

To print out the previously marked records using the formatted printout, select Print Report/Labels from the Print Data screen. At the resulting screen, select Print Report/Labels again and the marked records will be printed according to the format that has been set.

Slide	:	1
Description	:	Wide-angle of Jag E-type
Keywords	:	car, fast, sport, speed, jaguar, british, race,
Slide	:	2
Description	:	Close up of PCW screen with spreadsheet
Keywords	:	spreadsheet, numbers, computer, table, calculate, fast
Slide	:	3
Description	:	Wide-angle of Oulton park pits

The result to aim for; it's order out of chaos - before your very eyes

valuable time. A database record structure which offers a fast search of photographs with specific key features need contain a maximum of only three fields. The first would contain the reference number of each slide, the second a brief description of the photograph; the third would contain a number of keywords relevant to the photograph or slide in question.

5 Entering the data

Half of the hard work is now done. The second half entails entering the data describing each of the slide photographs. However, it is highly recommended that a very small sub-set of this data is entered first so that a few test runs can be made to ensure that everything is set up correctly and that the design actually works like you want it to. It's worth doing before you begin to enter reams of valuable data.

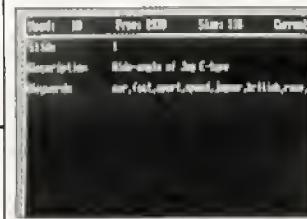
- At the database menu select Edit Data then [ENTER].
- Type [N] to enter a NEW record.
- Into the Slide field type the slide photograph reference number then [ENTER]. In this example the slide references are simply

numeric, but you may have your own unique photograph-numbering or reference system.

Similarly type into the second field a short description of the particular photograph: Wide-angle of Jag E-type will do. Finally, into the Keywords field type a number of themes or characteristics that the photograph contains, represents or refers to. Don't forget that it is one or more of these keywords that the database will search through when you're looking for photographs that display certain themes or topics. (This screenshot shows the first record entry for our database).

Finally, enter nine more records like this so

8 Checking the result



At the database menu, select Edit Data and you will be taken to the first record that has been marked - by an asterisk in the top right of the screen. You can now cursor from one marked record to the next to check that all the records marked have the selected keyword, "fast" in their Keyword field.

7 Locating the search word

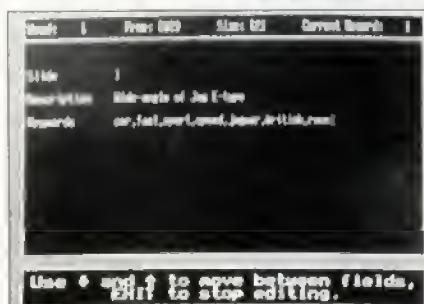


Use the positioning keys to select "*" in the fourth or "match" field then [ENTER]. Entering = on its own prompts the program to find just the separate word "fast." Entering * = ensures that every occurrence of the character sequence "fast" is located - whether it is a separate word or part of another. 4) Respond [Y] to the Ignore case? question which the program proffers. 5) Press [S] to execute the search. Mini Office will now scan the database and report back the number of records found and marked.

6 Initiating a search



Remember our aim - to quickly locate and retrieve photographs with a particular theme. Let's scan the ten records entered for all references to the keyword "fast". This entails specifying the search field, Keywords, the search key, "fast", and finally how to search for this key ... upper/lower case or whole word or part of a word. 1) From the database menu select Search and Mark data. 2) At the Record structure screen, move the cursor down to Keywords then [ENTER]. 3) Above Enter search data, type in "fast."



that a test run can be made in which we will carry out a search on all those slides or photographs in our collection which have a certain theme in common.

Quickies

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Crosswords are, for many people, something of a compulsion. Witness the daily commuter phenomenon of hundreds of papers, all open at exactly the same page and the scale of this obsession becomes clear.

X Worder has been designed for crossword fans who want to take their hobby one step further, and design their own. LocoScript is not a medium which instantly springs to mind for this type of task. The idea of typing in a LocoScript document which would look even remotely like the familiar black and white squares of a crossword puzzle could be enough to send most addicts scurrying straight back to their magazines and newspapers.

Thurston Techniques claim to have come up with the answer. They have prepared a variety of crossword templates in LocoScript. All the aspiring crossword designer then has to do, is engage the literary grey matter, and actually think of the clues.

The crossword template can be treated like any other document,

because, in effect, that is exactly what it is. The judicious use of characters such as "#" to fill in the black squares, are what creates the crossword itself.

Each template leaves handy word-sized spaces, which are numbered in order. A list of numbers at the end refers to the clues, and in true crossword style, these are labelled "Across" and "Down" and have the wordlength in brackets beside them. Of course, the one drawback which springs to mind is that it may not be possible to fit the words into what is a very precise pattern. This does, of course, depend on your skills as a crossword compiler.

If you can't do it, there are two alternatives. One is to use the completely blank crossword grid, and fill in your own black squares and numbers. The other option is to use the complete template, and edit it only when you are stuck for a word.

The documentation that comes with the templates is the

bare minimum. It takes the form of a contents file, which tells you how to fill in a crossword by, not surprisingly, typing the letter in the middle of the box. You may also find, within the confines of a LocoScript group, the prize crossword, serving a dual purpose as both a competition and a completed template.

Basically, these templates are a classic case of "what you see is what you get" with graphics that are uninspiring, but functional. For a true crossword buff, this program could provide hours of endless fun; for the rest of us it is probably better left on the shelf. ■

X WORDER

Pluses

- ▲ Original idea
- ▲ Easy to use
- ▲ LocoScript-based

Minuses

- ▼ Lousy documentation
- ▼ Uninspired graphics

Ease of use	4/5
Documentation	2/5
Addictiveness	3/5
Implementation	3/5

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Value Verdict 12/20

Word Disc

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Writers are bound by the same rules as all other professions, and one of the golden rules of aiming for publication has always been good presentation. To create a good impression, the work, whether it is a TV script or a novel, must be easy to read, and there are often standard ways to set out your work which will make it into a more attractive proposition.

For many of you, this was one of the main reasons for buying your PCW in the first place, and this product from Thurston is intended to help you along your way. The bulk of files on this disc are templates, which allow you to lay out your work in the standard fashion.

A template in LocoScript is something which most users eventually discover for themselves. It is the starting pattern for a document in which the margins, tabs, pitches and so on are pre-set. Thurston have taken the work out of setting up a new layout by giving you templates for novels, radio scripts, TV scripts and plays. A sequence of simple LocoScript commands allow you to load a new template.

The radio script, for example, allows you to enter all speech in a neatly aligned right hand column, and

places the names of the characters over to the left hand side - nothing too earth shattering here.

Some templates are more complicated than others, but the benefits are based on convenience rather than offering you any completely new possibilities in LocoScript. However, if you lack the time or knowledge to set up layouts, then these templates could be an excellent idea.

The other writer's tool included on the disc is a list of synonyms. In this case, the ability to find a synonym for a given word constitutes a definite addition of something new and worthwhile to LocoScript. Searching for the word among 40,000 entries involves using LocoFile. If you don't have it, then this part of the product is of no use to you.

To find a synonym for a word in a file, you have to actually leave [E]dit mode, and go back to the Disc

Management Screen; but this drawback stems from LocoFile, not Word Disc.

For a product aimed at the writing fraternity the documentation does little to inspire, or indeed, inform. The absence of a manual is excusable, on the grounds that the templates really are very easy to use. The alternative, however, a file with the misleading title of "advice", makes us hope that nobody in Thurston is intending to take up the writing profession themselves. It manages to make what is, in fact, extremely simple, sound complicated.

On the whole, a useful bunch of templates, and definitely an inspired idea. In terms of value for money, this really depends on how familiar you are with the layout tricks of LocoScript. Apart from the synonym searching facility, what you are basically paying for is Thurston's expertise in manipulating LocoScript's layout facilities. ■

Word Disc

Pluses

- ▲ Good for lazy writers
- ▲ Easy to use
- ▲ Good layouts

Minuses

- ▼ Lousy documentation
- ▼ You can do without it

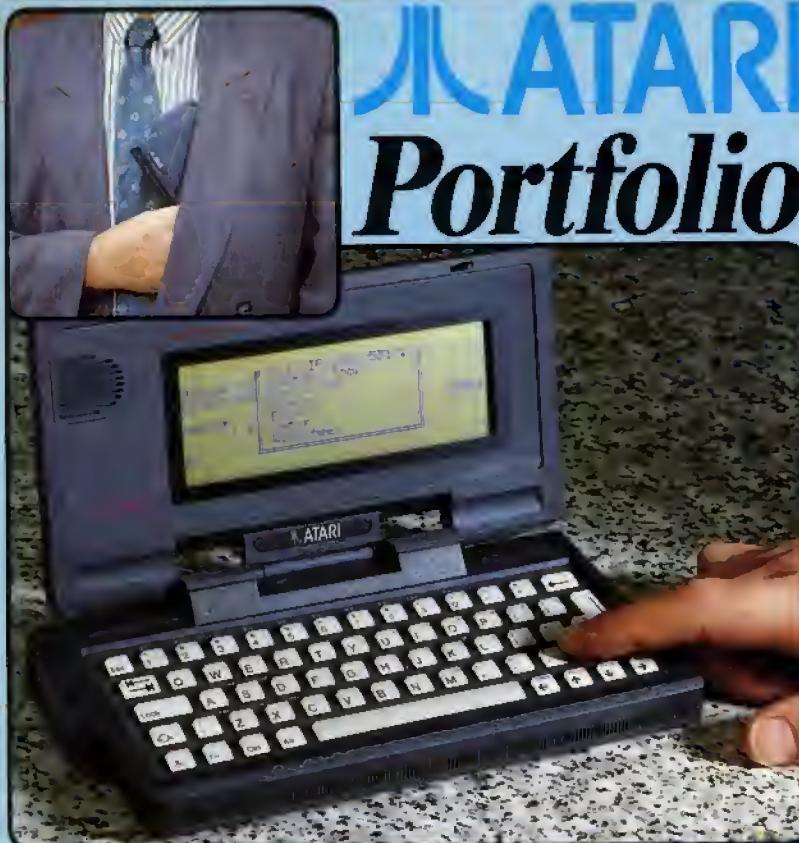
Ease of use	4/5
Documentation	2/5
Features	4/5
Performance	4/5

8000 Plus
Value Verdict 14/20

SCENE 4:8
EXTERNAL. DAY. → (A BOAT ON A RIVER. OARS SPLASHING AND OCCASIONAL BIRDS SINGING DURING FOLLOWING DIALOGUE)
1. SIMON:→ Nevertheless you thought that I, for all these years, because of him, did what exactly?
2. SHARON:→ I never thought about it.
3. SIMON:→ For over forty years you never wondered why I forced you, and later the children as well, Saturday after Saturday, to learn LocoScript?

The radio script illustrates just one of the layouts provided by Word Disc

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Portfolio also includes several functions that you would not expect - a spreadsheet for your personal budget and expense records, as well as a text processor for typing memos and letters.

And, because Atari's Portfolio is PC compatible, it can communicate with your desktop PC at home, or in the office. You can transfer files from one to the other, to enable you to update your reports and figures with the Portfolio while you are on the move.

FOR ONLY **£249** INC VAT

SPECIFICATION

Processor: Intel 80C88 at 4.9152MHz.
Operating System: Compatible with MS-DOS 2.11.
Internal ROM: 256K containing BIOS, operating system and applications suite.
RAM: 128K with an internal RAM disk, configurable from 8K. Externally expandable to 640K RAM.
Keyboard: 63 keys, QWERTY, IBM PC BIOS compatible. Buried numeric pad and function keys. Optional key click.
Character Set: Extended IBM ASCII (255 characters).
Mass storage: credit card sized memory cards (32K or 64K or 128K RAM).
Display: Graphics LCD, super-twist technology, MDA compatible, 40 columns x 8 lines, 240 x 64 pixels (with the option to window a full 80 x 25 character display). Keyboard controlled contrast.
Peripherals: 60 pin expansion BUS to take serial and parallel ports and memory expansion units.
Size: 8" x 4" x 1" (200mm x 105mm x 29mm).
Weight: 495 grammes (with batteries).
Applications: calendar and diary, address and phone book, Lotus 1-2-3 compatible spreadsheet, text processor, communications software.

COMING SOON!

In addition to the excellent software built-in to the Portfolio Free of Charge (see right), other software and peripheral products, such as the sophisticated Pocket Finance package and serial/centronics interfaces are available. And it doesn't stop there. Many manufacturers have recognised the potential of the Portfolio and have already started to design new peripherals and software. Products currently under development include: Serial interface with built-in mini modem, Apple Macintosh interface, business, utility and programming software plus a range of adventure and battle strategy games. For further free details on the Portfolio range, fill in the coupon below and return it to Silica Systems now.

5 BUILT-IN APPLICATIONS! TO GET YOU ORGANISED!

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power and root calculations, all with multi display formats and memories.

ADDRESS BOOK & DIALLER

Portfolio has a complete address book facility that allows you to store hundreds of addresses and phone numbers. And, at the touch of a button, you can retrieve any one of them, or search for a specific grouping, such as "all Italian restaurants". And, when you are ready to book your table, hold your Portfolio to your telephone mouthpiece and use its special built-in tone dialler to dial the number for you.

TEXT PROCESSOR

The Portfolio's built-in text processor program

includes word wrap, line and column count, string search, in fact most of the functions you would find in a word processor. It handles printer and word processor control codes and allows easy transfer of files between Portfolio and your desktop PC.

SPREADSHEET

For real calculating power, Portfolio has a Lotus 1-2-3 compatible spreadsheet built-in. It has 127 columns x 225 rows and reads/writes Lotus V1.0 and V2.01 files, so you can transfer data to and from Lotus 1-2-3 on your desktop PC. The Portfolio's 256K ROM includes MS-DOS and PC BIOS compatible systems software.



MEMORY CARDS

Portfolio can store and retrieve data and programs from its own RAM, or from small credit card size memory cards, that slot into its built-in card drive. The cards are available in three sizes, 32K, 64K and 128K, so you can carry a library of data in your pocket. The card drive also accepts ROM cards, which can contain commercial or custom software.



POWER SUPPLY

Portfolio is powered by three AA batteries which will last for up to six weeks with normal use, or from the mains using an adaptor. All the peripherals take their power from the Portfolio. So you can leave all the adaptors and cables at home. A "battery-low" warning and memory back-up ensure that information is not lost when the batteries are changed.



INTERFACES & PERIPHERALS

Portfolio can communicate with other computers and supports a growing range of peripherals via a built-in 60 pin bus connection. These are available including serial and parallel interfaces and memory expansions (up to 640K). You can also add a card drive to your desktop PC, to enable it to read/write to Portfolio's cards.

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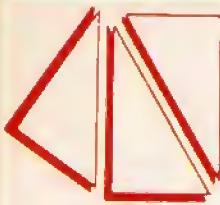
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Corruption
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THE ATARI ABC

Now, there's a PC-AT compatible that not only solves problems like other AT compatibles, it also solves the one problem that its predecessors have created ... affordability.

Silica Systems are pleased to present the new Atari ABC. The ABC is a 286 AT compatible that runs at over 5 times the performance of the IBM XT. This is achieved by combining the power and speed of a 16-bit 286 processor, with Atari Corp's development experience and engineering capabilities, which use the very latest in design technology. However, the Atari ABC's are available at 'XT prices' and many XT owners will wonder why they paid more, but got less!

The ABC is a reliable, high performance computer, built to exceptionally rigorous standards. It is well designed, to a state of the art specification, maintaining maximum expansion capability for the future. This includes up to 4Mb of RAM and 3 AT expansion slots. Plus, unusually for a PC at this price, the ABC has the ability to install two or three extra drives, with the cabling already inside the CPU.

The ABC has a host of impressive features, all built-in as standard, encouraging simple installation and ease of use. In addition, the ABC's small footprint and quiet operating, mean that you will notice it less on your desk than other PC's. Except, of course, when you begin to take advantage of its AT power.

At its remarkably low price point, the ABC is ideally suited for home, office and educational use and will take full advantage of the vast range of PC compatible software. And, with 12 months FREE on-site maintenance (8 hour response), you can rest assured that your ABC will be fully supported.

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AVAILABLE: JUNE 90

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Listings

The mysteries of an ancient oriental game and a program which writes a program? Karen Donaghay reveals all in this month's listings!

This month, in our constant quest for an easy life, we turn our eagle eye onto the long-winded task of running a BASIC program. Compared to running any CP/M program, those written in BASIC have always required a little extra time and effort. Wouldn't it be nice if you could load a disc, replete with BASIC programs, and wait for your PCW to politely ask which program you wish to use?

Runaway program

Before you run Maker.bas, make sure you have saved it. Being a program which writes and runs others does have one pitfall: before you know it, you could be using your new, ready-made menu program, having lost its creator, Maker.bas.

A program which writes a program — now, there's a neat idea! This obliging little listing can write a tailor-made menu program for each and every one of your BASIC working discs. No wonder Roger Wibberley refers to his program by the imposing title of "Automatic Operational Program Generator".

To use the program, put the disc which you want to be automated into the current drive. When the program is run, the names of all of the files on the disc appear.

You can then choose the names of the programs to be included on your menu. If they have the suffix ".BAS" then this need not be included. The menu will allow up to 24 programs. After making your final choice, press return and your program begins its work, generating a BASIC menu

Roger Wibberley has made it possible to create a fully automated BASIC disc, making your programs so much more accessible.

One program, which would certainly benefit from this treatment, is our second listing, Othello.bas. Feel like switching off that spreadsheet to relax with a game that any PCW user can enjoy? Yes? Then just walk this way.

Maker.bas by Roger Wibberley



The program maker.bas can create a menu, such as this one, for any disc which contains basic programs. To run one of the programs, simply choose a letter.

program, tailored to the requirements of that particular disc.

The program will be called Mainmenu.bas and is saved to the disc to be used again. When it is first created, it is also automatically run. To run the program of your choice, simply press the relevant letter.

Once you have this magic menu-making program, you can make it run as a **SUBMIT** file. To set up a

submit file, type in the command
PIP MENU.SUB=CON:
then carefully copy in the line **BASIC
MAINMENU [ALT]/[Z]**.

If the CP/M utility SUBMIT. COM is then copied onto your BASIC disc, this enables you to bring up the menu at anytime, by simply typing in SUBMIT MENU. You can now easily choose your favourite BASIC program.

```

10 cls$=CHR$(27)+"E"+CHR$(27)+"H"
20 rvson$=CHR$(27)+"p";rvsoff$=CHR$(27)+"q"
30 PRINT cls$;"Files on this disc are...";PRINT rvson$
40 DIR
50 PRINT rvsoff$;PRINT
60 PRINT "Enter the required programs for the menu.."
70 PRINT: DIM pr$(24)
80 FOR i%=1 TO 24
90 PRINT "Name of program no.,";i%;:INPUT pr$(i%)
100 IF pr$(i%)="" THEN i%= i%-1: GOTO 120
110 NEXT i%

```

The sequence to print characters in reverse video is defined as `rvsOn$`. Define the array "prS\$" to allow for 24 program names and read in the program names.

```

120 OPEN "0",2,"Mainmenu.bas"                               OCF2
130 PRINT #2, "10 CLEAR; PRINT CHR$(27)+";CHR$(34);"e";CHR$(34) 1689
140 PRINT #2, "20 cls$=CHR$(27)+";CHR$(34);"E";CHR$(34); 1328
150 PRINT #2, "+CHR$(27)+";CHR$(34);"H";CHR$(34) 1055
160 PRINT #2, "30 r$yon$=CHR$(27)+";CHR$(34);"p";CHR$(34) 1548
170 PRINT #2, "40 r$soff$=CHR$(27)+";CHR$(34);"q";CHR$(34) 1542
180 PRINT #2, "50 PRINT cls$; TAB(37) ";CHR$(34); 1247
190 PRINT #2, "M A I N M E N U";CHR$(34);";GOSUB 1000" 133C

```

The file "mainmenu" is opened. The first 50 lines of the menu program are written to the mainmenu file.

```

200 proglines% = 1000; ascii% = 97
210 FOR line% = 1 TO i%
220 PRINT #2, proglines%; PRINT ";CHR$(34);CHR$(ascii%);"
230 PRINT #2, CHR$(34);"; TAB(5)rvson$"; CHR$(34); pr$(line%);"
240 PRINT #2, CHR$(34); "rvsoff$"
250 proglines% = proglines% + 10; ascii% = ascii% + 1
260 NEXT line%

```

OD67
07C8
1A7F
17DE
OD8E
1444
0688

The subroutine to print out the actual letter, CHR\$(ascii%) and the corresponding program name, pr\$(line), is sent to the file.

```

270 PRINT #2, proglines% + 10; " PRINT TAB(45)"; CHR$(34);"
280 PRINT #2, "Enter the required letter..."; CHR$(34);"
290 PRINT #2, proglines% + 20; " RETURN"
300 PRINT #2, "60 K$=UPPER$(INKEY$); IF K$=";
310 PRINT #2, CHR$(34); CHR$(34); " THEN 60"
320 PRINT #2, "70 i%="; i%; " IF ASC(UPPER$(K$))<65 THEN 60"
330 PRINT #2, "80 IF ASC(UPPER$(K$)) - i% > 64 THEN 60"

```

16C3
18BC
1011
121E
0F4E
1612
125B

The final part of the subroutine to ask for the user's response is written and sent to the mainmenu file. The response is checked for validity.

```

340 proglines% = 90; ascii% = 65
350 FOR line% = 1 TO i%
360 PRINT #2, proglines%; IF K$ = " ; CHR$(34);"
370 PRINT #2, CHR$(ascii%); CHR$(34); " THEN program$ = ";
380 PRINT #2, CHR$(34); pr$(line%); CHR$(34);"
390 proglines% = proglines% + 10; ascii% = ascii% + 1
400 NEXT line%
410 PRINT #2, proglines% + 10; " PRINT cl$; RUN program$"
420 CLOSE 2; RUN "mainmenu"

```

0CA1
07D6
1149
1787
113C
1452
067A
1927
0D28

The final part of this listing finds the name of the program in the array pr\$ and runs it.

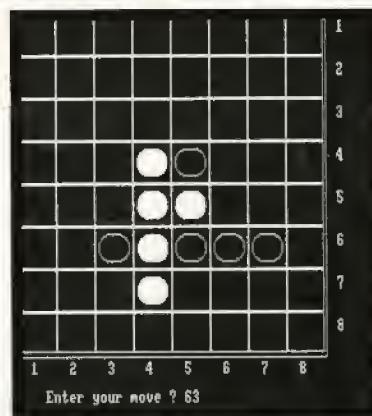
Othello.bas

The ancient game of "go" is credited with the same prestige in Japanese culture as the game of chess in our own. The two are comparable in terms of both intricacy and skill; however, the Japanese game, in typically ascetic fashion, is based purely on the use of black and white counters.

From these illustrious roots, came the simplified European version of the game, which was called Othello. It also relies on the use of black and white counters, and the principles of the game are the same. Few people manage to reach the heights of intellectual challenge with "Othello", but it is nonetheless a hugely popular game.

Richard Hopkins has come up with a PCW version of Othello. Exactly how much Eastern knowledge can be captured in 88 lines of Mallard BASIC is debatable, but the program certainly appears to put up a game struggle against newcomers.

To play, the program first asks you to choose your level of skill. The screen



The PCW challenges you to a game of skill and strategy in the program othello.bas

goes blank for a short time while the computer prepares the board. There are, to begin with, only four counters. You are the white player (portrayed as hollow pieces on the screen), and the computer has the black counters.

You choose where to put your

counter by entering two digits, firstly the vertical reference, then the horizontal. Any attempt to enter an impossible move will cause your opponent, the computer, to respond with a belligerent bleep.

The aim of the game is to have as many of your counters on the board as possible. Any of your opponent's counters, caught between your counters and the one you have just played, become yours. The PCW takes its time over choosing its own moves, no doubt pondering over a myriad of possibilities.

The winner is the player with the highest number of counters at the end of the game. This is either when the board is full, or when no more moves are possible.

A few refinements, for those of you with the time and inclination, would make this into a very polished program. The most obvious addition would be to add a continuous score-keeper, and a few lines to print a message when you reach the end of a game.

```

10 e$=CHR$(27); rv$=e$+"p"; nv$=e$+"q" 0D43
20 c1$=e$+"E"+e$+"H"; on$=e$+"e"; of$=e$+"f"; PRINT of$ 1199
30 DEF FNat$(x,y)=CHR$(27)+"Y"+CHR$(31+x)+CHR$(31+y) 1334
40 DIM a(7,7); RESTORE 720; GOSUB 720 1055
50 INPUT "Enter level 1-25 (1=hard) "; lev 12C4
60 IF lev>25 OR lev<1 THEN 50 0CB8
70 GOSUB 90; GOSUB 430 0A09
80 t=1; GOSUB 190; t=-1; GOSUB 390; GOTO 80 1147

```

The program is set up in lines 10 to 40. The program then prompts the user to enter the level of play and the board is drawn. Line 80 is the main program loop.

```

90 a(3,3)=50; a(3,4)=-50; a(4,3)=-50; a(4,4)=50 0C80
100 FOR n=2 TO 5; a(0,n)=5; a(n,0)=5; a(7,n)=5; a(n,7)=5; NEXT 1695
110 FOR n=6 TO 7 06BA
120 a(n-6,7-n)=-5; a(n-6,n)=-5; a(n,n-6)=-5; a(n,ABS(n-13))=-5; NEXT 1977
130 RESTORE 160 06DD
140 FOR n=1 TO 3 069C
150 READ x,y,z; a(x,y)=z; a(y,x)=z; a(x,x)=z; a(y,y)=z; NEXT 1C71
160 DATA 0,7,20,1,6,-10,2,5,10 08D4
170 FOR n=3 TO 4 06B1
180 a(n,2)=5; a(2,n)=5; a(5,n)=5; a(n,5)=5; NEXT; RETURN 15F5

```

Lines 90 to 180 consist of a subroutine which assigns values to the board. This subroutine is called in line 70 of the main program.

```

190 di=0; su=1 05CA
200 PRINT FNat$(28,5); CHR$(7); 0BAD
210 INPUT "Enter your move "; i; i=i-11 121F
220 IF i>77 OR i<0 THEN GOTO 200 0D60
230 x=INT(i/10); y=i-(x*10) 0990
240 IF ABS(a(x,y))=50 THEN GOTO 200 0E9D

```

The subroutine at line 190 starts by allowing the player to enter a move. The subroutine is called during the main program loop on line 80.

```

250 FOR f=-1 TO 1; FOR n=-1 TO 1 0C2D
260 IF x+f>7 OR x+f<0 OR y+n>7 OR y+n<0 THEN GOTO 280 19B9
270 IF a(x+f,y+n)=50;t THEN GOSUB 320 0F6B
280 NEXT; NEXT 07CE
290 IF su=1 AND di=0 THEN GOTO 200 0EF7
300 IF su=2 AND di=1 AND sc>hsc THEN xsc=x; ysc=y; hsc=sc 1CD2
310 RETURN 0500
320 x1=x; y1=y; x1=x1+(f*2); y1=y1+(n*2) 0E84
330 IF x1>7 OR x1<0 OR y1>7 OR y1<0 THEN RETURN 153B
340 IF ABS(a(x1,y1))>>50 THEN RETURN 103F
350 IF a(x1,y1)>>50;t THEN x1=x1+f; y1=y1+n; IF su=2
    THEN sc=sc+1; lev; GOTO 330 ELSE 330 2553
360 IF su=1 THEN a(x1,y1)=-50; GOSUB 680; di=1; IF x1=x AND y1=y
    THEN RETURN ELSE x1=x1-f; y1=y1-n; GOTO 360 3170
370 IF su=2 THEN di=1; RETURN 0DCC
380 IF su=3 THEN a(x1,y1)=50; GOSUB 640; IF x1=x AND y1=y
    THEN RETURN ELSE x1=x1-f; y1=y1-n; GOTO 380 2F18

```

This part of the subroutine checks to see if a move is valid, and is used to check either the computer's or player's move.

```

390 xsc=0; ysc=0; hsc=-100 0B9C
400 FOR x=0 TO 7; FOR y=0 TO 7; di=0; sc=a(x,y) 133F
410 IF ABS(a(x,y))>>50 THEN su=2; GOSUB 250 123E
420 NEXT; NEXT; x=xsc; y=ysc; su=3; GOTO 250 1716

```

The computer finds its best move in this part of the program, using the previous subroutine to check whether a move is valid or not. Make sure that when typing in lines 350, 360 and 380 that you don't press [RETURN] as these are simply very long lines.

430 OUT 248,8;PRINT c1\$	0AFD
440 PRINT FNat\$(1,0);CHR\$(134);STRING\$(39,138);CHR\$(140)	1782
450 PRINT FNat\$(25,0);CHR\$(131);STRING\$(39,138);CHR\$(137)	16F7
460 FOR f=6 TO 38 STEP 5	098A
470 PRINT FNat\$(1,f);CHR\$(132)	0C51
480 PRINT FNat\$(25,f);CHR\$(129)	0C40
490 NEXT	0433
500 FOR n=2 TO 24	0721
510 PRINT FNat\$(n,0);CHR\$(133)	0C2A
520 PRINT FNat\$(n,41);CHR\$(133)	0005
530 FOR f=6 TO 38 STEP 5; PRINT FNat\$(n,f);CHR\$(149);NEXT	1916
540 NEXT	0426
550 FOR n=4 TO 22 STEP 3	0951
560 PRINT FNat\$(n,0);CHR\$(130);STRING\$(39,154);CHR\$(136)	17BC
570 FOR f=6 TO 38 STEP 5;PRINT FNat\$(n,f);CHR\$(159);NEXT	1929
580 NEXT	0432
590 FOR n=1 TO 8	06D1
600 PRINT FNat\$(n*3-1,42);n;PRINT FNat\$(26,n*5-3);n	16CD
610 NEXT;OUT 248,7	0825
620 x1=3;y1=3;GOSUB 640;y1=4;GOSUB 680;x1=4	1279
630 GOSUB 640;y1=3;GOSUB 680;RETURN	11DA

Between line 430 and line 630 is the subroutine to draw the screen. It calls on separate subroutines, at lines 640 and 680, to draw the black and white counters.

640 PRINT FNat\$(2+(x1*3),2+(y1*5));	0DAB
650 PRINT CHR\$(166);rv\$;" ";nv\$;CHR\$(167)	112F
660 PRINT FNat\$(3+(x1*3),2+(y1*5));	00B3
670 PRINT CHR\$(169);rv\$;" ";nv\$;CHR\$(168);RETURN	15DE
680 PRINT FNat\$(2+(x1*3),2+(y1*5));CHR\$(160);	10EC
690 PRINT CHR\$(162);CHR\$(162);CHR\$(161)	0E41
700 PRINT FNat\$(3+(x1*3),2+(y1*5));CHR\$(165);	10FB
710 PRINT CHR\$(163);CHR\$(163);CHR\$(164);RETURN	1309

From line 720 onwards the program loads a section of machine code into memory, including the data needed to provide the graphics for this program.

720 MEMORY &HBFFE	0B02
730 FOR hex=&HC070 TO &HC098; READ pk; POKE hex,pk; NEXT hex	1CAD
740 DATA 243,62,129,211,241,62,130,211	0B5A
750 DATA 242,175,95,103,22,184,58,153,192,111,41,41	0F2C
760 DATA 41,25,17,154,192,235,1,8,0,237,176,62,133	0F04
770 DATA 211,241,62,134,211,242,251,201	0B50
780 FOR char=160 TO 169; POKE &HC099,char	1139
790 FOR row=1 TO 8	0886
800 READ binary(row);POKE &HC099+row, (binary(row));NEXT row	206D
810 c1=&HC070; CALL c1; NEXT char;RETURN	1387
820 DATA 0,7,24,32,64,128,128,128,0,224,24,4,2,1,1,1	0EB9
830 DATA 255,0,0,0,0,0,0,0,0,0,0,0,0,0,0,255	0BD7
840 DATA 1,1,1,2,4,24,224,0,128,128,128,64,32,24,7,0	0E8B
850 DATA 0,7,31,63,127,255,255,255	0A9C
860 DATA 0,224,248,252,254,255,255,255	0B92
870 DATA 255,255,255,254,252,248,224,0	0B96
880 DATA 255,255,255,127,63,31,7,0	0A66

How to type in a listing

Type in BASIC at the CP/M prompt, and press [RETURN]. The listing can now be copied in line for line exactly as written. The numbers at the right hand side should not be typed in, as they are part of an optional checking process. At the end of each line press [RETURN]. If you spot a mistake before pressing [RETURN] it can be corrected by using the cursor and

[DEL] keys. To correct a mistake after the [RETURN] key has been pressed, type in EDIT and the line number. The mistake can now be corrected as before. The entire program can be checked by typing in LIST. Save it with the instruction SAVE" followed by the name of your program. To use the program you simply need to type in RUN.

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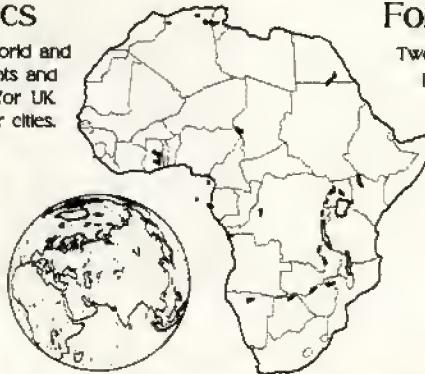
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LANGFORD

A page in the company of David Langford



Aftermath of Glory

When aiming these columns at aspiring book writers labouring on their PCWs, I may sometimes give the impression that heartache ends once your contract is signed, your advance banked, and your book in print. There are still grim days ahead.

What awaits you is the grimy face of marketing, the dark side of the sales force. The publisher's publicity department will arrange for you to promote your masterwork on local radio... local, that is, to somewhere incredibly remote. After years of making such trips, many authors suspect that it's wiser to stay at the keyboard or the day job rather than traverse most of Britain to be patronised for about five minutes by a low-browed DJ who has neglected to

read the book. "So, er um Mr Rushdie, you've written these er verses about Satan, does this mean you're interested in heavy-metal music?"

As for the other promotion you'll get.... Once I was a guest of honour at the World SF Convention on one of its rare visits to Britain, and my latest publishers were offered lashings of free publicity, with the prospect of selling stacks of copies to the thousands on thousands of SF fans being indoctrinated with my alleged wonderfulness at the event. So shrewdly did they seize this opportunity that not one copy of my novel was available throughout the entire convention.

Family loyalty

Indeed, all your relatives, friends,

acquaintances and long-lost schoolmates up and down Britain can be relied on to complain bitterly that they'd *love* to read your book but can't find it anywhere. No matter how many were supposedly distributed, it is an unwritten law of the book trade that all copies of an author's works are stripped from the shelves whenever said author, or anyone he or she once met in a bus queue, is so much as suspected of loitering in the vicinity. This is done, of course, for the humane purpose of protecting writers' egos from over-inflation.

The book industry's parting boot in the groin comes all too soon after publication day, when it becomes clear what your long literary toil has been leading up to: providing the vital raw material for the remainder trade.

The bottom line

Remaindering is simply the flogging off of "no longer profitable" book stocks at a trade price so low as to break the barometer. I recently had an unusual letter from one publisher. It was a personal note signed by an editor I knew, apologising for a book's imminent remaindering, telling me how many copies were in stock, and offering me first chance to buy them at the price offered to remainder distributors.

This was astonishing. I was being informed about remaindering *exactly as specified in my contract!* That's not how it's usually done....

The normal routine is for some relative or friend in a far-flung county to mention that for months now, Cheap'n'Nasty Book Bargains just down the road has been selling your novel for peanuts. This seems strange, as your contract definitely says that remaindering won't even be considered for months yet, and that you'll be the first to know.

Authors become cynical about the fact that this unloading happens in remote places, as though to avoid any awkward questions from the actual writer. (One outfit, notorious in the trade, openly offers to dump remainders discreetly on the Continent.) Your editor feigns total bafflement; the evil deed has been done by mysterious "marketing people" who know nothing of your contract details.

The point of informing you is

that it gives you a chance to stock up with copies to cushion your retirement — or at least insulate your attic. You could even buy the lot and avoid the stigma of appearing in remainder shops at all. Well, that's the theory....

Horror stories

I bought as many pre-remainder copies of Book A as I could afford. They weren't that cheap, but the publisher swore this was — as per contract — the lowest wholesale price. Then I discovered stacks of them at half that price, *retail*, in Oxford Street. Result: after much aggro, a grudging refund.

There was similar trouble with Book B. I bought "the lot" ... and then found my market spoilt by cheap, dumped copies of the Australian edition which had somehow never been exported. Result: nothing to be done without starting a lawsuit.

Book C was remaindered early in breach of contract. This sounds illegal, but in practice all the breach does is terminate the contract: by remaindering, the publishers have washed their hands of you anyway, so *they* don't care. "Can I buy copies?" I asked. "We only have 20," they replied, and instantly sent them — with an invoice for some horrendous sum, three times the rate I was quoted by the remainder dealer who'd bought the rest. Result: when shouted at long enough, the publishers said that the 20 copies had been complimentary ones all along.

Book D was also remaindered in breach of contract. By now I was learning to complain loudly and often, and with the aid of the excellent Society of Authors got an ex-gratia payment in partial compensation for the publishers' crimes.

Book E... well, the message is becoming clear. When remaindering looms, you need to watch your publishers with laser-eyed scrutiny and be ready to complain until you're blue in the mouth. Although this gives you a certain sense of satisfaction, it is unfortunately not too good for author-editor relations. Meanwhile, I have this nightmare which starts: "Hello, this is 8000 Plus. We have 112,876 Langford columns in our warehouse and need the space. We can offer them to you at 25p each if you take the whole lot...." ●

TIPOFFS

Don't hang around on the sidelines; get on the ball

Unable to save confidently in LocoScript? Can't tackle BASIC? Afraid to take a shot at CP/M? Don't just pass; as the football season starts, come to Tipoffs, the pages that always score. This month there are clever moves in LocoScript, LocoFile, BASIC, CP/M and Mini Office, and Martin Leverton of Cambridgeshire wins £30 for coming up with an easy screen blanking program that lets you dabble in assembly language.

If you know of any tactical tricks in LocoScript, BASIC or any well-known program, tell us at *Tipoffs, 8000 Plus, 30 Monmouth St, Bath BA1 2XF* – it's Freepost, so you'll kick yourself if you don't!

Designer label

I need to print out a number of addresses on labels on my PCW 8512 but get confused. Help! Is it me or the manual?

M S Khan,
London NW12

8000 Plus: Probably the manual. Assuming you have a file of names and addresses, one to a page, and you're using 1 1/2 inch continuous label paper, here's what to do.

LocoScript 1: In the disc manager, press [PTR] to enter 'printer control' state and press [f1] selecting 'continuous stationery' with [+] and making the form length 9 with the gap length 0. [EXIT] leaves 'printer control' state and you can then print.

Make sure the print head is at the top of a label before starting; if things start to print wrong, press [PTR] then [f7][ENTER] to stop printing and then [EXIT].

Realign the paper and start again.

LocoScript 2: In the disc manager insert your start of day disc and set up a new 'paper type' as follows. Select [f6] 'Settings' and choose 'New paper type'.

Set the details as follows: continuous stationery (with [+]), length 9, bottom gap 2. Make the new name 'Labels'. Write these new settings to your start of day disc.

In the document with the list of names press [f1] for 'document setup' and press [f5] 'page' selecting 'Paper type'. Select 'Labels' with [+], [EXIT] and [ENTER] back to the main document.

When printing out make sure that the paper type selected if you're queried is 'paper for document'.

In the bank

Ever fancied dabbling in assembly language – 'proper' programming? Read on. A common worry with the PCW is what to do when you leave it switched on for long periods. It is good to be able to blank the screen to prevent the image of what's on screen 'burning' itself permanently on to the screen. It is easy to write a BASIC program to do this, but it's a waste of disc space if you need all of BASIC just to blank the screen.

Here's an easy way to construct an assembly language program CLS.COM that can sit on your startup disc, or any disc, and will blank the screen when you run it (by typing CLS [RETURN] at the A> prompt of CP/M).

The screen remains blank until any key is pressed, when it lights up again. All you need is a couple of utilities that you already have on the PCW's master discs.

1. Create the following text file in LocoScript (or a text editor if you prefer) on a disc in the A drive. Use tabs to line the columns up, and watch for zeros and Os – any sequence ending with h, like 00F8H, contains zeroes not letter Os; any 'word' like BDOS has letter Os, not zeroes. Save it as say CLS.

In the disc manager, put the cursor over CLS and press [f1] (or [f7] in LocoScript 1) for 'Make ASCII file'. Move the cursor to group 0 of the disc and give the name for the new, ASCII version of the file, as CLS.ASM. Press [ENTER] and when Loco has finished its stuff, remove the disc and proceed with stage 2.

```
ORG 100H
JMP START
BDOS equ 0005H
```

```
START: MVI a,8
```

Tips book tips

Two errors in the 8000 Plus Tips Collection book, and one amendment:

1. Page 54: alter SAVE "ZAP.BAS,A" to SAVE "ZAP.BAS".A
2. Page 56: alter PRINT FNfont\$ to LPRINT FNfont\$
3. Users of the SPELCHEK program (page 139) will have noticed that there are two END lines (530 and 680).

If the program is allowed to run to the end of the file, then line

310 directs it to line 680, which does not contain a KILL command. As a result, unnecessary CHK files can accumulate on the disc. This can be corrected by amending line 310 to read 530 instead of 680.

When presented with a word not in the Spelchek dictionary, it is sometimes hard to decide what action to take unless the context is provided.

This can easily be done by inserting this line:

395 PRINT line\$

David Simpson,
Lusaka, Zambia

```
OUT (00F8H)
MVI c,1
CALL BDOS

MVI a,7
OUT (00F8H)

RET
END
```

2. Reset the PCW with [SHIFT] [EXTRA] [EXIT]. Insert your CP/M disc. At the A> prompt, type PIP [RETURN]. When the * appears, insert side 3 of your CP/M master discs if you have a PCW8256 or 8512; otherwise leave the same disc in the drive.

Now type M:=A:MAC.COM [RETURN] and when it's finished, type M:=A:HEXCOM.COM [RETURN].

Now insert the disc with CLS.ASM on it and at the *

```
ip 0/CLS Editing text.
  1 Pi12 LSI CR+0 LP6
  2 f2=Layout f3=Style f4=$1
  3
  4 ORG+ 100H
  5 JMP+ START
  6 BDOS+ equ 0005H
  7
  8 START:+ MVI+ a,8
  9 OUT+ (00F8H)
  10
  11 MVI+ c,1
  12 CALL+ BDOS
  13
  14 MVI+ a,7
  15 OUT+ (00F8H)
  16
  17 RET
```

Assembler made easy! First make a document like this in LocoScript. The position of the tabs doesn't matter...

prompt type A:=M:.* [RETURN]

Then press [RETURN] again so that the A> shows once more.

3. Type MAC CLS [RETURN] and wait for the A> to reappear.

4. Now type HEXCOM CLS [RETURN] and wait for the A> to reappear.

5. Type DIR [RETURN] to check that a file called CLS.COM has been created on the disc in A. The other files (MAC.COM, HEXCOM.COM, CLS.SYM, CLS.HEX, CLS.PRN and CLS.ASM) can all be deleted. You don't need them now.

Now you can type CLS [RETURN] and the screen will blank until the next key press. The file CLS.COM can be copied on to any disc or run from the M drive if you wish.

Martin Leverton, Little Gidding, Cambs

Making ASCII file, Printer
 File F4=Group F5=Document F6=Settings
 Make ASCII file
 New Name: CLS.ASM
 Group: group 0
 Drive: A
 Old Name: CLS
 Group: group 0
 Drive: A
 5 hi

...then make an ASCII file of it and call it CLS.ASM, putting it in group 0 of the disc...

```
ip
  1 CLS ASM : HEXCOM COM : MAC
  2 Mac cts
  3 CP/M MACRO ASSEM 2.0
  4 0110
  5 000H USE FACTOR
  6 END OF ASSEMBLY
  7 hexcom cts
  8 HEXCOM VERS: 3.00
  9 FIRST ADDRESS 0100
  10 LAST ADDRESS 0110
  11 BYTES READ 0011
  12 RECORDS WRITTEN 01
```

```
ip
  1 CLS ASM : HEXCOM COM : MAC
  2 CLS SYM : CLS
  3 CLS
  4
```

...and finally a simple bit of jiggery-pokery with a couple of utilities you already have lurking on your discs produces a proper machine code program to blank the screen and protect it from burnout.

In the dumps

It is possible to get a screen dump done automatically from within a BASIC program, without requiring the user to press [EXTRA] [PTR]. The following lines in a program set it up:

```
1000 RESTORE 1000 : DATA
  205,90,252,114,20,201
1010 h=HIMEM : sd=h-5 :
  MEMORY sd-1
1020 FOR n=sd TO sd+5 : READ
  a : POKE n,a : NEXT
and from then on a line such as
1030 CALL sd : REM screen
  dump
will send a screen dump to the
printer. This works only on dot
matrix supplied with the 8512 and
8256, of course. For owners of
non-Amstrad dot matrix printers
```

another method is available. PCW World is starting a new shareware scheme. (Details on sending see to them at Cotswold House, Cradley Heath, Warley B64 7NF, tel. 0384 66269). One disc, SW101, contains a new screen dump routine which will work with non-Amstrad printers.

Geoffrey Childs,
Winchcombe, Gloucester

8000 Plus: Thanks very much – perhaps I should mention that Geoffrey's book "Streamline BASIC" contains a lot of valuable information like this and is available from PCW World with disc for £18.95.

Incidentally, PCW World tell me that their SW101 screen dump routine may well work with 9512s as well.

Cheap shot

Are there any easy ways of doing simple name-and-address mail shots without needing a mail merger? As an impecunious student I can't afford LocoMail!

Huw Williams, Swansea, Wales

8000 Plus: You can try the old trick of putting the 'letterhead' in the header, the content of the letter in the footer, and make each page contain just the recipient's name and address and the 'Dear Mr Smith' line. You have just as many pages as recipients – of course this only works for one page letters.

Let's suppose you have a file on disc with the names and addresses of the people you are writing to, in a suitable format for printing address labels (eight lines per page with a separate name and address on each new page). What you can do is to adjust this name-and-address file so that each page looks like:

Mr J Hawley 35 Station Rd
Birmingham B5 8YH

Dear Mr Hawley

of header 1 : used for all pages
The next meeting of the society will be at Bidston Sidings on 20th November.
Please bring a parka, woolly hat, a thermal flask, National Health
insurance card, together with elastoplast and a timetable. I look forward
to seeing you there.
Yours sincerely
Brian Dredge
Secretary

of footer 1 : used for all pages
of footer 2 : used for no pages at all
of footer 3 : used for no pages at all

With headers and footers like this...

...and a main document like this, you can do a
mail shot for free

Dennis Smith
"Dunsportin'"
Railway St
Swindon
Mr J Hawley
35 Station Rd
Birmingham
B5 8YH
Dear Mr Hawley
Ted Wilson
The Old Station
Bilton Rd
Bristol
Dear Mr Hawley

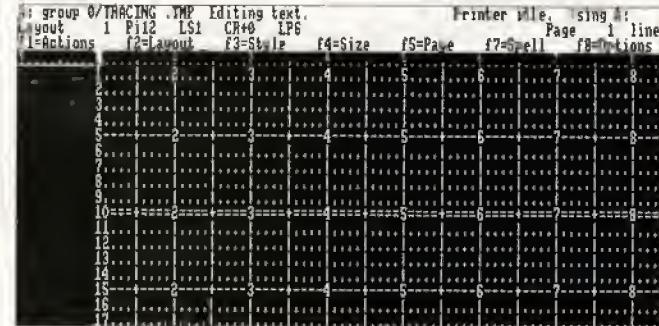
Tracing positions

It's often useful to be able to place your text on a particular place on a page, for filling in forms or standard documents. The problem is knowing which position on screen corresponds to which position on the paper.

The answer is to make a document like this and print it out on a sheet of tracing paper or thin clear plastic of the same size as your paper – this one is A4.

You can place the result over the form and so decide the position required by any text you want to place.

Ian Davy, London SW14



Not the most riveting read, but this document prints out on tracing paper to give a useful guide for precise text positioning on normal paper

Address problem

When printing out selected fields from Mini Office's database in label format, only the first line of any multi-line field (such as the address) is printed out. Is it possible to get the other lines printed out, or do I have to split all such

fields into several single-line fields?

Mrs J Hornby, Preston, Lancs

8000 Plus: It sounds, I'm afraid, like one of those niggling little bugs Mini Office has in plenty. I can't think of a way round, but perhaps some Tipoffs reader can enlighten us?

Space saver

If you're getting tight for space and want to cram your text onto one A4 page but are getting short of lines, you can get an extra seven lines by deleting the header and footer zones.

In edit mode, press [f1] [ENTER] [f1] which takes you to Document Setup. Press [f5] 'Page', move the cursor to 'Page layout', and press [ENTER].

This shows the page layout as 3 lines for the header zone, 4 for the footer zone, and 54 for the page body. Move the cursor over 'header zone' and type 0 [ENTER], then repeat for footer zone. 'Page body' now reads 61.

Now pressing [ENTER] [EXIT] [ENTER] [f1] now takes you back to edit mode. 'Layout information' on the right hand side of the screen should now show line out of 61 instead of 54.

If you're still tight for space, going into proportional spacing can save you an extra two or three lines but have the same character size as 12 pitch.

Go to the start of the document and press [+ PPS [ENTER]. Similarly [+ P 15 [ENTER] (for 15 pitch) or [+ P 17 [ENTER] (for 17 pitch) crams more text on, but by making the letters themselves smaller.

Ted Holmes, Stourbridge,
West Midlands

Print problems

I use a Citizen Swift 24 with LocoScript 2. It prints nicely in NLQ, but hopelessly in draft unless the pitch is 10; for other pitch sizes it is actually slower than NLQ.

I have written to Locomotive, who say it is due to the small buffer on the Swift and therefore Citizen's problem, and to Citizen, who say it is a driver shortcoming,

and therefore Locomotive's problem. I don't think I'm getting anywhere...

Dr N Pritchard, Banchory,
Kincardineshire

8000 Plus: Hmm. I'm afraid I've no idea what to advise, other than getting your money back because it clearly doesn't work.

Unless, of course, Locomotive or Citizen are reading this and can suggest something a bit more positive...

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From little PIPs

Recent tipoffs have hinted at various options that PIP has, for example the very useful archiving function whereby a command such as PIP M:=A;*:*[a] copies only those files that have been edited since the last time they were copied. Is there a [b], [c] function and so on up to [z], and what do they all do?

David Ainslie, Wellington, New Zealand

8000 Plus: Almost. Here's a complete list. They can be combined, eg. PIP M:=A;*:*[ABCD5HE].
[A] Is the archive function that copies only those files that have been edited since the last use of PIP...[A] on them. Very useful for keeping backups of files.

[B] The so-called 'block mode transfer' that seems to have no purpose whatever.

[C] Confirm: asks for a Y (to copy) or N (not to copy) before each file. Very useful if you want to copy all except one or two files from a large batch.

[Dx] Deletes all characters past column x. Useful for files where eg. the lines are too long for an 80 character printer.

[E] Echo. Types out the contents of a file as it is transferred. Useful with PIP LST:=CON:[e]

[F] Filter form feeds. Takes out all page ends in a document.

[Gx] Group. Specifies a group number to copy to or from, eg. PIP M:[G3]=A;*:*[G6]

[H] Hex. Checks data for hex-format file and reports errors.

[I] Ignore. Ignores .00 when transferring hex files.

[K] Kill. Suppresses the list of file names on screen when carrying out lots of copies, eg. with PIP M:=A;*:*

[L] Lower case. Changes all capital letters (ABC) to lower case (abc) as it copies.

[N] Number. Adds line numbers starting at 1 and increasing by 1 as the file is copied.

[O] Object file transfer: for transferring machine code files. Ignores control-Zs which would normally be an end of file marker.

[Px] Page. Inserts end of page markers every x lines. If no x is specified will take x to be 60.

Normally used with [F] to take out page ends already in a file and reset them to the desired figure.

[Q@^Z] Quit. Stops copying the file when the specified string @ is reached. PIP M:=A;*:*

[QFRED^Z] for example will stop copying when the word FRED is reached. Only works with capitals.

[R] Reads system files which PIP normally ignores.

[S@^Z] Starts copying when the string @ is reached. Often used with Q to give start/end points.

[Tx] Tabs. Changes tab characters into x spaces.

[U] Upper case. Changes all lower case (abc) in the file to upper case (ABC).

[V] Verify. Checks that the file has been transferred by comparing source and destination files.

[W] Write over. Writes over 'read only' files automatically – normally it asks for confirmation.

[Z] Zero parity bit. Sets the eighth bit in each character to zero, effectively stripping out eg. Protext printer codes, NewWord dot commands etc. etc.

[J], [M], [X], [Y]... No effect.

Keep cool

Here's an enhancement to Fr Peter Goddard's tip on LocoFile listing (Tipoffs, July). Such a method can be very useful to make lists and, in some, omit individual pieces of information (eg. missing out blank address lines from short addresses). This can make the final items in the list different lengths and "Do not break paragraphs" won't work with all the variations.

For these you can use the (+Keep) and (-Keep) codes which are often overlooked. For example, if you have a listed item which can be a maximum of 9 and

minimum of 5 lines, then at the beginning of the program unit (inside the " marks) put a [+ K5 [ENTER] and at the end (again inside the " marks) put a [- K5 [ENTER]. The idea is that whatever the length of the item, the Keep codes overlap and hold the item in a block which won't break between pages.

This idea can of course be used for normal non-LocoFile compiled documents, particularly in the 'fill' templates.

The only thing to watch for is that you don't have any (LayoutT) codes in the program unit, which can cause problems.

Tom Brightmore, Mickleton, Glos

Limbo regions

If you've made a change to a document in LocoScript and then realised after saving that you've accidentally erased something you shouldn't have, it's possible to recover the previous version of the file.

Suppose your file is called BIG.DOC and that you've just [CUT] some text and saved the file, but realise you cut too much and want to recover a certain block of text from the old version. In LocoScript's disc manager, press [F8] and use [+] to tick the 'Limbo' option. Press [ENTER] and you will see files with "lim" appear in each group. In the group with BIG.DOC you now have another file called 'BIG.DOC lim'; this is the previous version.

Move the cursor over BIG.DOC lim, Press [F3] (in LocoScript 1, [F5]) and select 'Recover from limbo'. Give a name by which BIG.DOC lim will now be known – BIG.OLD say. The file now appears as a proper document, BIG.OLD, and can be edited like any other document.

So, to recover that block of text you erased accidentally at the start and transport it to the new version of BIG.DOC, edit BIG.OLD. Put the cursor at the start of the text you wish to transport and press [COPY]. Move to the end of the section to be transported and press [COPY] again followed by a number such as 0. [EXIT] and Abandon edit. Edit BIG.DOC and move to where the transported text is to be inserted. [PASTE] 0 and the text is inserted.

Tricia Tillin, Exeter, Devon

Three quickies

1. To get a screen dump of part of the screen, move the starting point to the top of the screen and press [EXTRA] [PTR]. When the

printer has gone down one line before where you want it to stop, press [PTR] again. The screen dump stops after the next line.

2. Stuck for memory space in LocoScript 2? Set the printer (press [PTR] then [F5] to whatever print style you want, then delete all the MATRIX files (including MATRIX.PRI) from the memory. The printer will work as usual. To change fonts, recopy MATRIX.PRI and the relevant MATRIX file to the memory.

3. In LocoScript, you may wish to have some series of page enders which can't be set up as a normal footer – eg. Roman numeral page numbering, done manually at the

bottom of each page. But if you want to centre these, and put [RETURN] at the end of the last line on the page then [+CE] to centre the Roman numeral, you find it destroys the justification of the last line.

The answer is to make a phrase consisting of exactly one line's width of hard spaces ([+] [SPACE]) with a Roman numeral in the middle. Make this a phrase by pressing [COPY] at the beginning, [COPY] at the end and then 0. At the beginning of the last line of a page, type [+ LS2 [ENTER], then [PASTE] 0. Edit the Roman numeral to the correct page number, then press [EOL] and [+ LS 1 [ENTER].

What was the last line moves to the beginning of the next page but your text remains justified and the Roman numerals are nicely centred.

David Simpson, Lusaka, Zambia



Made some changes to a LocoScript file and wish you hadn't? Don't worry, you can recover the old, 'limbo', version. Just give it a new, different name.

Mini too small

We have just over 100 members' details listed in our Mini Office database on our 8256. When we try to add more names, the database will not save them. What is wrong?

P Talbot-Ashby, Swansea, Wales

8000 Plus: It sounds like Mini Office, which runs from the M

drive, has run out of space: the easiest option is to beef up your memory by 256K, either by yourself or getting it done professionally for you.

Silicon City on 0209 891141 do easy-to-follow DIY packs for £29.95 (I've used them several times and can recommend them wholeheartedly – all you need is a screwdriver) or can do it for you. This should, at a wild guess, triple your capacity.

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see also "Special Offers"

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<i>MasterScan is for 8256 and 8512 only. It is a good value scanner for digitising black & white fine drawings. Please call for advice before ordering.</i>	

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We are happy to give our advice on printers. Please call any of the numbers shown below, during normal office hours.

9 PIN PRINTERS

Citizen 120-D Plus	139.95
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Star LC-10 Mark 1	169.95
Panasonic KXP-1180	179.95

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Please call for advice before ordering.	
Star LC24-10	249.95
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These pages provide a guide to software for the Amstrad PCW. Published in three monthly parts, this time it's the turn of Databases, Educational Software, Communications and Programming Languages. We've set out to cover every important piece of software we could lay our hands on, and to give you enough information to decide whether they are suitable for you.

All software will run on both the 9512 and the 8000 series machines, though the former's daisywheel printer cannot print graphical output.

The selection isn't comprehensive, but the software listed here represents what we think is the best of that currently available.

As well as a brief summary of what they do, the main Plus and Minus points for each program are listed – Pluses have a ▲ by them, Minuses a ▼. Those we think are particularly noteworthy have a corner flash. Have fun window shopping!



There are broadly two different types of database, and which suits you best depends, of course, on what you want it for.

Firstly there's the simple card index substitute. For many home users, this will be the kind of thing you want – all it does is store your address book or stock items so that you can easily look them up.

A more sophisticated option is the programmable database. With these, in addition to allowing simple card index retrieval there is a command language which allows you to analyse the data on the cards. For example, you could automatically add up the money owed to you by all your customers from Yorkshire. To make best use of this kind of facility, you will need to be able to understand a little programming, although it's not too hard really.

A bit of jargon now. A database is said to consist of records – this is just like a card in a conventional card file, with all someone's details on it. Each record is composed of fields – a field is a single entry on a card, like someone's name, or age, or postcode.

The thing that makes a database special is an index. You might be able to hold your address book as a simple list in a word processor document, but if it gets large then this becomes unwieldy. An index means that the database has worked out which order records should be in, so it can go straight to the one you want without looking at lots of others first.

The field that you use as your index (e.g. someone's surname) is said to be a key field, and can be looked up very fast compared to "non-key" fields. A good database will allow multiple keys, meaning that it can look up data just as fast for a variety of types of information.

Masterfile 8000

£49.95 • Campbell Systems • 0378 77762/3

A specially written PCW version of the successful database sold on other Amstrad computers. It is fully menu controlled, and makes good use of the PCW's special screen and keys. It can deal with up to 8 separate data files at once, so can cope with relational databases. Screen (but not printed output) can be elaborately laid out with boxes, lines etc.

PLUSES • MINUSES

- ▲ Works fast
- ▲ Wide range of layout options
- ▲ Handles 'relational' files
- ▲ Plenty of good example files
- ▲ Can do arithmetic calculations within its records
- ▼ Capacity limited by size of M drive – best on an 8512
- ▼ Takes a while to learn all the features

- ▲ Carries out searches on partial strings – ideal for when dealing with incomplete information

Chibase 3.0

£29.95 • Chiasma • 06333 60996

The updated version of the 'free format' database. You type in the text, mark the words to be indexed and treat the file as a database. The updated version allows you to import and export ASCII data files and a chain delete option enables you to work your way methodically through the database deleting the records you don't want while keeping those that you do.

PLUSES • MINUSES

- ▲ Good amend, sort and recall features
- ▲ You can edit without a word processor
- ▲ Searches quickly through data
- ▲ Great for storing large amounts of data where the subject matter is variable
- ▼ Useful record template
- ▼ Can't run from M drive

Datastore II

£39.95 • Digita International • 0395 270273

Ideal for the novice, Datastore II allows you to remove the tedium from filing, updating and organising information. 32000 records, 32 fields, fast search facility. Function keys can have phrases assigned to them. Good for uses where the emphasis is on printed output.

PLUSES • MINUSES

- ▲ Flexible range of print commands
- ▲ Simple to use
- ▲ Calculation facilities
- ▼ Need to preset maximum no. of records before you start
- ▼ Slow at browsing through

Delta

£99.99 • Compsoft • 04868 25925

Delta is another of the heavyweights, like dBase II and Condor, but unlike them is fully menu driven. Although the screen layouts are fully flexible, there is a default "quick" layout so you don't have to sweat at defining your own. It could use better record indexing facilities. Particularly good for writing applications, once you have ploughed through the large manual.

PLUSES • MINUSES

- ▲ Records can contain up to 90 fields, plus groups of fields that may be repeated
- ▲ Screen layout can be user defined, or "quick" mode used
- ▲ Single page letter writer provides detailed mail merge
- ▲ Processes can be defined, and run from user defined menus, for ease of use by others
- ▲ Very full, and quite readable, manual
- ▼ Only one field may be used for indexing
- ▼ Very big program – a PCW8512 would be hard pushed
- ▼ Some of the menu operations are unforgiving to errors

Mini Office Professional Plus

£39.95 • Database Software • 0625 878888

The Mini Office database retains its original format. It's a

Cambase II

£49.95 • Cambrian Software • 0766 831878

New version of the old favourite PCW database. Most important change is the Copy FileSpec facility. You can set up a new database with potentially more entries than you've made provision for using the information from the original database. You can also change the fields to suit another set-up.

PLUSES • MINUSES

- ▲ Quick and efficient to use
- ▲ You can set up a database blueprint (FileSpec) which you can test thoroughly before entering data
- ▲ Includes powerful features like conditionals, loops, field validation, and specified layouts
- ▲ Simple parts of the program are well covered in the manual
- ▼ Can't use the memory bad news for 8512 users
- ▼ You have to guess how to use the more advanced features
- ▼ Not much room for prompts
- ▼ Tendency to crash occasionally in FileSpec

LocoFile

£29.95 • Locomotive • 0306 740606

The indexed pop-up database that runs from within LocoScript 2 and that goes even further toward turning LocoScript 2 into a completely integrated software package. Unlike most databases empty records take up almost no space on disc. This allows large record cards to be defined even if they won't always be used. Records pop up very quickly without having to exit from your document. Works best when used in conjunction with LocoMail.

PLUSES • MINUSES

- ▲ Very easy to use
- ▲ Unusually efficient use of disc space
- ▲ Can alter existing index – a very powerful feature indeed
- ▲ Automatically upgrades your LocoScript, LocoMail and LocoSpell to version 2.2
- ▲ Sample databases help you get a better feel for the program
- ▲ Very flexible when designed the record format

Software Guide

pretty standard card index type, similar to *First Base*. Good range of selection operations and arithmetic on fields. Can sort over a combination of fields and print out a variety of smart layouts, and you can have up to 255 fields. No import or export of data.

PLUSES - MINUSES

- ▲ Easy to use and intuitive
- ▲ Can use the data in the word processor
- ▲ Powerful selection and sort facilities
- ▲ Arithmetic on fields
- ▲ Test print facility lets you check your labels will print okay
- ▲ One command makes global changes
- ▼ Can't import or export data

Pocket InfoStar

£69.50 • MicroPro/DRA • 0386 841181

Consists of two large programs, *DataStar* and *ReportStar* (both available independently). *DataStar* is a conventional database, with screen card layout and indexing. *ReportStar* then generates the printed output, either from *DataStar* or *CalcStar* files. Powerful if you can use them, but the suite is horrifically overcomplicated, and the documentation just incomprehensible.

PLUSES - MINUSES

- ▲ *DataStar* is a quite good database with indexing and calculated fields.
- ▲ "Transaction processing" feature allows cross referencing of data files.
- ▲ Can be integrated with other Pocket products, eg *WordStar*.
- ▲ Can take up to 255 fields per record
- ▼ Two volume manual set is very badly organised.
- ▼ There are separate programs to run for form design, data entry and reporting.
- ▼ Operation is all by obscure command keys, à la *WordStar*.

dBase II

£99.00 • Ashton Tate/First Software • 07357 5244

The *WordStar* of database packages. Recently licensed "cheaply" for Amstrad machines, *dBase II* is a market leader in business computing. As you would expect, this means it is very powerful but very complex. It has a procedure language to allow you to write programs to manipulate the data, and you can construct index files for really fast access to large databases. If you can make the effort to learn it, it'll serve you well.

PLUSES - MINUSES

- ▲ Powerful command language for customised programs
- ▲ Indexing facility makes large databases fast to handle
- ▲ Can handle very big databases
- ▲ The data can be fairly easily altered after its entry
- ▼ Manual is daunting (but there are plenty of independent books on the market)
- ▼ Can't easily alter the screen record layout
- ▼ For an expensive package, you still only get 32 fields per record
- ▼ Generally unfriendly unless you have some programming skills

First Base

£29.95 • Minerva • 0392 437756

Billed as a simple database for the first time user, *First Base* is quite a competent cheap card index. The manual is computer printed, and weak on diagrams which doesn't help things. One weakness is getting printed results out of *First Base* - either you settle for crude lists, or you have to create a template in *LocoScript* which is awkward to do. But overall, it's pretty good value for money.

PLUSES - MINUSES

- ▲ Can alter the index field at any time
- ▲ Simple to use screen editing make data entry easy
- ▲ Good value as a simple card index lookup system
- ▲ Can easily browse through the database picking out a set by hand
- ▼ Manual is badly laid out and generally difficult
- ▼ Producing printed output is awkward

Sagesoft Retrieve

£70 • Sagesoft • 091 2131555

A high-power package that is relatively easy to use with password security if desired, calculations, automatic counting or deletion of sets of records satisfying given conditions. It also has sophisticated sort and select commands, and can change the structure of an existing database. All this is done by a set of commands rather like a programming language. Printed formats are rather limited though and the program insists on using both drives, making use of an 8256 impractical.

PLUSES - MINUSES

- ▲ Easy to use for a powerful package
- ▲ Advanced sorting and selection commands
- ▲ Subsets can be written to files
- ▲ Can count or delete subsets with one command
- ▲ Labelling/mailmerging routines included

- ▲ Can change structure of existing database
- ▼ Impossibly big program for 8256
- ▼ Printed output limited - must use mailmerge

Script2Base/Text2Base

£29.95 each • Encyclasoft • 0270 811890

Two free-form databases to be used with *LocoScript* and *Protel* respectively. Complete rewrites of *FT-DB*, the beauty of these databases is that you first create all your text on the word processor and import it as an ordinary (non-ASCII) text file into the database. You then mark all the words you want to see indexed as keywords so that you can go on to compile indexes and carry out searches.

PLUSES - MINUSES

- ▲ Very easy to use
- ▲ Allows you to organise your collection of discs like an encyclopaedia
- ▲ Can construct new files made up of selected parts of existing ones
- ▲ Can send any part of a document to the printer on a line-by-line basis
- ▼ No text-editing facilities within the databases themselves
- ▼ Dreadful documentation

Smartcard

£59.95 • Focus Computers • 0272 420109

A conventional card index database which is now the nearest thing available to *Cardbox*. Small and fast, you can sort the records, index up to three fields and do simple arithmetic in fields. Can't put background text (eg. titles) on records or printouts.

PLUSES - MINUSES

- ▲ Good clear screens
- ▲ Plenty of on screen help
- ▲ Fast and high capacity
- ▲ Easy to use
- ▼ Can't put background text on printed reports
- ▼ No way of exporting data for mailmerge

Magic Filer

£69.95 • Sagesoft • 091 2131555

Magic Filer is not a true database, but is a structured filing system. Information is split into a hierarchy of categories, and tagged with a keyword which is not stored as part of the data. You can browse through the data, but it will get tedious if you find it needs updating regularly. Many applications will find *Magic Filer* restrictive.

PLUSES - MINUSES

- ▲ Good for browsing through data when you don't really know what's there
- ▲ Data can be declared "read only" to protect it from alteration by other browsers
- ▼ The basic filing system is weird but not wonderful
- ▼ Editing data once in *Magic Filer* is awkward
- ▼ The documentation is far too brief
- ▼ You can only have one database per disc

Microfile (Sold in The Micro Collection)

£49.95 • Saxon Computing • 0401 50697

Microfile is a well implemented simple database, driven by plenty of menus and on-screen prompts. It's fast and has good screen control, although it has some size restrictions. *Microfile* comes as part of a software suite, "The Micro Collection", which is good value (*Microfile*, *Microwrite*, *MicroSpread*, *Flexlabel* and *Lock-It*).

PLUSES - MINUSES

- ▲ The price includes competent word processing, spreadsheet, labelling and encryption programs
- ▲ Plenty of menus and on screen prompting
- ▲ Very flexible formatting for screen layout and printing
- ▲ Numeric fields can be expressions to be calculated
- ▲ Indexing is fast and can be on several fields
- ▼ Maximum number of fields per record is only 20
- ▼ Limited facilities for totalling up fields in a database



Educational Software is designed as an aid to traditional teaching, not an alternative. Its main use is in reinforcing traditional learning done elsewhere and providing the stimulus of a different approach. It can also be especially useful in rote learning and improving the speed at which problems can be solved.

Business French

(German/Italian/Spanish)

£49.95 each • Apex Computing Services

• 0273 727477

Four language learning packages which enable the Euro-conscious professional to get to grips with commercial jargon in another tongue. Areas covered are business, technical, travel, restaurants, communications and social - all with separate subsections to ensure that every eventuality is covered. A basic knowledge of the language concerned is, however, essential.

PLUSES - MINUSES

- ▲ Fun and easy to use
- ▲ Comprehensive range of vocabulary
- ▼ Program needs cassettes to be really good
- ▼ Some poor screen displays

Iankey Crash Course

£24.95 • Iansyst • 071 607 0187

A fairly traditional typing tutor, taking you through basic keyboard exercises. There's a lot of explanatory text, which gets in the way second time around. Definitely competent, but a bit boring.

PLUSES - MINUSES

- ▲ Mostly avoids boring letter drills
- ▲ Very full on-screen information guides you along
- ▲ "Fast" option cuts out some text if it gets repetitive
- ▼ Not particularly imaginative use of graphics
- ▼ It doesn't always ensure that the cursor is properly aligned with the exercise text

2 Fingers Touch Typing

£24.95 • Iansyst • 071 607 0187

Despite its provocative name, a useful typing tutor in that it specifically caters for people who can already get by on keyboards with two fingers. You are gradually introduced to touch typing, so your speed doesn't drop while you learn. Fills a necessary slot in the Typing Tutor market.

PLUSES - MINUSES

- ▲ Suitable for improving two finger typists without much drop in speed
- ▲ Full on screen instructions
- ▲ Exercise material is interesting text, not letter drills
- ▼ Explanation text is annoyingly verbose in some lessons
- ▼ It doesn't always ensure that the cursor is properly aligned with the exercise text

Giantkiller

£14.95 • Topologika • 0733 244682

A mathematics adventure game loosely based on *Jack and the Beanstalk*. Lots of intriguing puzzles which should stimulate any student up to GCSE standard. Not the best adventure game ever written but great for making mathematics fun!

PLUSES - MINUSES

- ▲ Puzzles plausibly integrated into scenario
- ▲ Progression of game is simple and well defined
- ▲ Puzzles introduce a lot of valid mathematics
- ▼ Program understands only very simple commands
- ▼ Saving a position takes a move - can be fatal
- ▼ Won't be of particular help in exams

Animal Vegetable Mineral World Wise

£14.95 each • Bourne Educational • 0794 523301

Aimed at the younger market, 7-15 year olds. Both these programs work by learning as the child uses them. Think of an object and the computer tries to guess it. If it is wrong, the child is asked for a question which would allow the PCW to be right next time, and it learns.

PLUSES - MINUSES

- ▲ Can be used as many times as the child's imagination holds out
- ▲ Performance can be analysed by a teacher after a session
- ▲ As you build up a base of objects and questions, they can be saved for reuse
- ▼ It needs a lot of typing, hence a lot of supervision
- ▼ The PCW starts with only two objects known, so it takes time to get going
- ▼ Documentation has hardly been altered from cassette based versions
- ▼ Since it is for young children, more imaginative use of the screen would be nice

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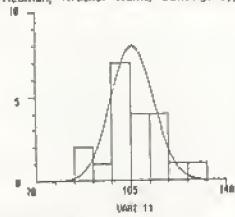
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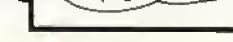
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Software Guide

This is a spelling course aimed at the 8 to adult age group. It consists of a series of well organised, short lessons each dealing with one topic, like plurals or which version of there/they're to use in a sentence. The use of the PCW screen is rather unimaginative, and doesn't hold your attention.

PLUSES - MINUSES

- ▲ Well thought out lessons to emphasise particular points
- ▲ Teacher words in a sentence context as well as in isolation
- ▲ Lessons can be picked in any order from a menu
- ▲ Seems to be proof against mischievous key pressing
- ▼ Boring use of the screen doesn't grab interest
- ▼ No instructions come as to how to use the program.

Chemistry/Biology

£22.95 each • School Software • 010 353 61 45399

These two are fairly traditional question-and-answer tests. You are faced with a choice of 10 topics, and then asked 10 or so questions each, where you have to fill in the blank in a statement. There are preamble notes beforehand, and if you get it wrong you are given a clue. Aimed at 12-16 year olds.

PLUSES - MINUSES

- ▲ Questions would challenge a GCSE pupil well
- ▲ Preamble notes introduce topics
- ▼ The fill in the blank questioning style has little flexibility for different answers
- ▼ No option to add questions for a specialised syllabus
- ▼ Some careless errors, like incorrect facts and hard to decipher chemical formulae

Micro Maths

£24.95 • LCL • 0491 579345

Supposedly covering 8 to adult ages, this seems an O-level type program, covering topics from calculus to tables. A good implementation on the PCW with proper use of the screen. Questions are picked at random from a pool, so may repeat but never run out. Replies to questions are typed in mathematical notation, like X^2+3

PLUSES - MINUSES

- ▲ You can pause to use BASIC as a calculator while you think
- ▲ 'Unlimited' question set
- ▲ Comes with a 'free' book of AEB O level questions
- ▲ Good hints and explanations
- ▼ Questions in a topic repeat occasionally
- ▼ Some frills, like the clock and beeper, are annoying
- ▼ No flexibility to add questions for a particular syllabus

Amstat 1,2,3,4,6 and 7

£28 - £40 • SC Coleman Ltd • 0530 415919

A suite of six statistical routines including a business analysis program, forecasting and resource management. Individual prices range from £27.95 to £39.95. Very sophisticated, and perhaps because of that, a little awkward for beginners.

PLUSES - MINUSES

- ▲ Good range of statistical functions
- ▲ Good manual
- ▲ Can produce good quality graphical results
- ▼ Some editing procedures very long winded
- ▼ Needs some expertise to use properly
- ▼ Weak on checking that input data is reasonable.

Yes Chancellor!

£14.95 • Topologika • 0733 244682

Wait! Don't skip over Yes Chancellor! because it calls itself an 'economic simulation' program. Instructive and fun to use, you type in your annual budgets (tax rates, public spending etc.) and see your popularity plunge and the economy crash. Great for economics classes, also an amusing game in itself.

PLUSES - MINUSES

- ▲ Simple but effective model of the economy
- ▲ Comes with booklet explaining economic principles
- ▲ Great for teaching economic and political pragmatism!
- ▼ Can get boring as a game
- ▼ You can't adjust the model of the economy, so it can be too simple

Ultimate Quiz

£14.95 • David Greenhough Computing •

0274 640764

An educational aid for school age children. Two quizzes on a multiple choice format are available on the one disc - one on general knowledge and one on the Highway Code. You can play against a timer and can set the level of difficulty.

PLUSES - MINUSES

- ▲ Optional noughts and crosses game included with either quiz
- ▲ Incorporates an editing file for easy updating of questions
- ▲ It's very versatile - up to 8 people can play

- ▲ None of the questions are repeated
- ▼ Some of the questions are a little esoteric

Supermaths

£16.95 • Abacus Software • 0689 36293

Specifically designed for the PCW, this program exercises basic numeracy skills in children. Questions are asked in quick fire volleys of ten and cover all four operations (addition, subtraction, multiplication and so on). Scores are automatically recorded.

PLUSES - MINUSES

- ▲ Special original Test and Worksheet modes included the latter is ideal for teachers
- ▲ Very efficient scoring method
- ▲ Numeracy level is very basic
- ▲ New version has enhanced screen displays
- ▼ Some of the questions may start to look familiar after a while

Language Tutors

£19.95 each • Kosmos Software • 05255 3942/5406

Four programs with identical formats to help you learn French, Italian, Spanish and German. They can be used just as effectively by students of those languages learning English too. Very versatile series of programs and useful adjuncts to conventional language learning.

PLUSES - MINUSES

- ▲ Can edit the lessons yourself to include new words
- ▲ Useful self test option
- ▲ Completely bilingual packages
- ▼ Purely for vocabulary learning no grammar lessons
- ▼ Would have been more useful if they had also included audio cassettes

Maths Mania

£16.95 • School Software Ltd • 010 353 61 45399

For children between the ages of 8 and 12, this program offers 5 levels of difficulty in multiplication and 2 in division. A very good program for exercising basic numeracy skills and for practising some mental arithmetic.

PLUSES - MINUSES

- ▲ Program provides a chirpy feedback on the score of the user
- ▲ Large attractive numbers appear on the screen
- ▼ Surprisingly enough, no addition or subtraction exercises are provided
- ▼ Screens could be made more visually exciting for the younger users

Better Maths

£16.95 • School Software Ltd • 010 353 61 45399

A continuation of Maths Mania for the next age group 12 to 16 year olds. Topics are very varied and cover, among others, statistics, simple interest and algebra. Each topic consists of a series of ten multiple choice questions. At the end of each set, the percentage score is shown.

PLUSES - MINUSES

- ▲ Realistic level of difficulty practised
- ▲ Program makes a first class revision aid

Communications

Communications is one of the glittering areas of computing, gurus would have you believe. It can provide a fascinating hobby for 'hackers', but more importantly it is a valuable business tool.

'Electronic mail' is just what it says: you use your PCW to send messages, which can be documents thousands of words long, to others on the electronic mail system. The best known system of this kind is Telecom Gold, which also allows you to send telexes. Another major system is Prestel, which is more of an information provider - you can read share prices, weather information and other news direct from your phone line.

For any professional service, you pay a registration fee, plus a connection charge - typically around 10p per minute you use the system. Of course, your phone bills are extra. For

hobbyists there are also 'bulletin boards', which are effectively a kind of private electronic mail system run by a system operator (a 'sysop' to those in the know).

To use any service, you will need to buy a modem and an interface. A modem allows you to send computer signals down a phone line, and the interface gets the signals from your PCW to your modem. The pair will set you back £200 or more. Once done, you need some software to allow you to send and receive data, and it is this software reviewed below.

Electronic mail services just send strings of characters to and fro, whereas Prestel is a 'Viewdata' system, meaning it sends pictures and graphics too. Software needs to do more to receive Viewdata graphics, so if you want to use Prestel make sure your software is up to it.

8256UKM7.COM

Public domain (ie. free!)

P.D. software documentation is often poor but this program has an above average document file. UKM7 was written to support ASCII file transfers using error correction and as a dumb terminal either for use over the phone or between two Amstrads. Between two PCW's file transfer is possible at a staggering 31,250 baud which is even faster than PIP! Easy to use for beginners and better than KERMIT, UKM7 provides a cheap and excellent way to communicate after you've got fed up with the PCW's MAIL232. 8256UKM7 is available from the Public Domain Special Interest Group, or most bulletin boards supporting the PCW machines.

PLUSES - MINUSES

- ▲ Cheap (the price of a phone call)
- ▲ Easy to use, and helpful menus
- ▼ Modem? version of Xmodem error checking supported
- ▼ Single file and Batch Mode transfers
- ▼ "Quiet" mode for slightly faster transfers (on-line transfer progress report disabled)
- ▼ Only ASCII, no Viewdata
- ▼ You need to find a PD software source (eg. use a modem and MAIL232 software)

Mini Office Professional Plus

£39.95 • Database Software • 0625 878888

The comms package is as comprehensive as anything else on the market. It can display both ordinary text screens and the 'Viewdata' block graphics used by Prestel. You are offered baud rates from 75 to 9600, separately set for transmit and receive, straight terminal emulation for use with Telecom Gold, and XMODEM and KERMIT file transfer protocols for error-proof transfer of long files. Would be well worth the money just by itself - and of course you're getting four other very good programs as well.

PLUSES - MINUSES

- ▲ Very comprehensive - a genuinely useful comms package
- ▲ Ordinary text and 'Viewdata' block graphics
- ▲ Can save setups under names and recall them, so you only need work out your baud rates/parties once
- ▲ You can set keys to return strings, such as Telecom Gold passwords
- ▲ Comes preconfigured to use Prestel and Telecom Gold

Chitchat E-Mail/Viewdata/Combo

Sagesoft • £69.99/£69.99/£99.99 • 091 284 7077

Two communications programs for the 8000 series machines that have been around for a good time now. Most of the features you will need are here: message text editor, pre-programming unattended tasks (if you use a suitable "intelligent" modem), directory of stored numbers, copy to printer, and a very useful connect time clock so you can watch your phone bill climb! E-mail is used for simple text phone links to Telecom Gold, whereas you'll need Viewdata if you want to use Prestel. The Combo pack contains both E-mail and Viewdata.

PLUSES - MINUSES

- ▲ Good, clear documentation
- ▲ Easy for first timers to use
- ▲ Built in text editor for pre-sending message preparation
- ▲ Pre-definable tasks executable at any preset time if unattended.
- ▼ No error corrected file transfer (i.e. Xmodem or CRC)

Dialog**£89.99 • PMS Communications • 021-643 7688**

Offers both E-mail and Viewdata operations. Very easy to use, and offers an XMODEM transfer protocol unlike Sage ChatChat. If you are buying a modem too there are some cut-price bundled deals to be had, eg. the Miracle Technology WS4000 modem.

PLUSES • MINUSES

- ▲ Simple to use
- ▲ Comprehensive file transfer commands, including XMODEM and the increasingly popular KERMIT
- ▲ Runs from the M drive
- ▼ Manual is not PCW specific, and the references to 5.25" discs are tedious

COMM+**£86.25 • NewStar • 0245 265017**

This single package combines both ASCII and full Viewdata block graphics and Telesoftware downloading. A very powerful command language allows you to look for particular messages coming in and take actions, even while doing other things. Its use is only limited by your programming ability.

PLUSES • MINUSES

- ▲ Very comprehensive and well indexed ringbound manual
- ▲ High quality Viewdata graphics
- ▲ Well presented on-line help menus for use by beginners
- ▲ Autodialler program works with most modems
- ▲ Telesoftware downloading facility, with CRC/Xmodem checking
- ▲ Very powerful command language, doesn't need much programming skill to learn
- ▼ Not recommended for absolute beginners to communications

Programming

Programming languages come as either 'compilers' or 'interpreters' – compilers pre process the program into machine code, so are much faster. The PCW's standard Mallard BASIC and LOGO are both interpreters. Compilers are generally more cumbersome to use than interpreters, but have various benefits for serious programmers.

With language compilers in particular it is difficult to discover whether they are reliable and efficient without spending many weeks working with them, impossible for a brief review. If you use a specialised programming language and have any comments that would help us compile a good software file entry for it, we would be pleased to hear from you.

Basic Needs**£9.95 (£5 to RNLI) • Luxylan Software • 0726 850820**

A BASIC bundle for programming buffs, which requires a small amount of foreknowledge to operate. Consists of five files that can be run under Mallard BASIC, including FRED, the Friendly Text Editor, which is an extremely agile and versatile file editor and program editor. Basic Needs is excellent value for money.

PLUSES • MINUSES

- ▲ Uses of LocoScript keys
- ▲ Easy to use
- ▲ Loads of features
- ▼ Documentation poor

HiSoft C**£39.95 • HiSoft • 0525 718181**

A very good C compiler, fast, produces good compact code. It comes complete with the HiSoft integrated text editor ED80.

PLUSES • MINUSES

- ▲ Compiles program into ordinary CPM .COM file
- ▲ Produces compact code
- ▲ Fast and inexpensive
- ▲ Comes with integrated text editor
- ▼ No floating point arithmetic

Arnold C**£49.95 • Arnor • 0733 68909**

Good compiler with floating point arithmetic, but not as fast or as cheap as HiSoft C.

PLUSES • MINUSES

- ▲ Excellent integrated text editor
- ▲ Floating point arithmetic
- ▼ Cumbersome to produce .COM files, needs special run time support program
- ▼ HiSoft C is faster and cheaper

MIX C**£29.95 • Advantage • 0242 224340**

American C compiler. You can buy a full screen editor with it for £19.95 extra. Also machine code assembler & examples for £8.95 each.

PLUSES • MINUSES

- ▲ Features an excellent C tutorial
- ▲ Comprehensive implementation and massive manual
- ▼ Not for the newcomer to programming

Pascal 80**£39.95 • Hisoft • 0525 718181**

A standard full Pascal compiler that produces compact code. Comes with the ED80 text editor and a stand alone programmers editor.

PLUSES • MINUSES

- ▲ Well integrated text editor – when you hit a compilation error you are returned to the correct point to edit it
- ▲ Short compilation time, economical on memory
- ▼ Manual makes no attempt to teach you Pascal

Hisoft Forth**£19.95 • Hisoft • 0525 718181**

Forth is an unusual language, somewhere between assembler and C. This is one of the few compilers available for the PCW.

PLUSES • MINUSES

- ▲ Comes with a Forth editor
- ▲ Quick and efficient implementation
- ▼ Manual doesn't teach you Forth

The Vicar**£49 • Lansyst • 071-607 5844**

A programming tool for serious programmers. If you have a several-hundred line program held in several files on a disc, you can lose track of which variables are used where. The VICAR produces a concordance listing and other diagnostics, to help you find bugs and maintain the program.

PLUSES • MINUSES

- ▲ Easy to use but still flexible through use of options
- ▲ Amstrad versions all at a special low price
- ▲ Good manual
- ▼ Only of value on large programs
- ▼ Limited value to most PCW users (except BASIC buffs)

Modula 2**£45.00 • Hisoft • 0525 718181**

A compiler. Modula-2 is the successor to Pascal, good for large programs requiring separate compilation. complete with text editor.

PLUSES • MINUSES

- ▲ Full implementation with extensions.
- ▲ Includes libraries of predefined modules
- ▲ WordStar type screen editor included
- ▼ Compilation process is longwinded and not for beginners

CBASIC**£45.00 • Digital Research • 0635 35304**

The original Basic compiler from Digital Research, and still one of the best for anyone wanting to produce COM files without abandoning their investment in Basic.

PLUSES • MINUSES

- ▲ Easier programming tool than conventional interpreter
- ▲ Very similar to Mallard Basic, so easy to learn
- ▼ No text editor – you need to buy a programmer's editor such as ED80, or the public domain VDO25
- ▼ Programs don't necessarily work faster than they would in conventional Basic, sometimes slower

All You Ever ...**£24.95 • CP Software • 0993 823463**

Program is ridiculously entitled *All You Ever Wanted To Know About Graphics, the Universe and Everything on the PCW 8256/8512 but were Afraid to Ask*. It's for the experienced programmer who needs fast, smoothly flowing and professional looking graphics output. It has a library of machine code routines which you can use in any language from Mallard Basic to machine code.

PLUSES • MINUSES

- ▲ You can produce professional standard graphics
- ▲ Demo programs included on the disc
- ▲ Routines are very wide ranging
- ▲ Excellent value for money
- ▲ New routines of latest version concerned with printer control
- ▼ Not recommended for beginners
- ▼ Cumbersome to use from Basic

Pascal/MT**£45 • Digital Research • 0635 53499**

A full implementation of ISO standard DPS/7185 Pascal with a number of extremely powerful additions. Is very good for large complex applications both data processing and system control.

PLUSES • MINUSES

- ▲ A very powerful tool for the serious software writer
- ▲ Unlimited program size with modular development and use of overlays
- ▲ Built in assembler
- ▲ Improved string handling (over standard Pascal)
- ▲ Choice of BCD real numbers for commercial/financial use
- ▼ No built in text editor
- ▼ Compiler in general and the manual in particular are not for beginners
- ▼ No graphics

DevPac 80 MKII**£49.95 • Hisoft • 0525 718181**

Version 2 of the PCW hacker's first choice of development system. Substantially upgraded from the original with a new quite powerful debugger, and a Mini Office-style main menu from which to run the individual utilities or your own finished programs.

PLUSES • MINUSES

- ▲ Powerful assembler producing REL or COM files
- ▲ Good hex facility for Basic programmers
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NEXT MONTH

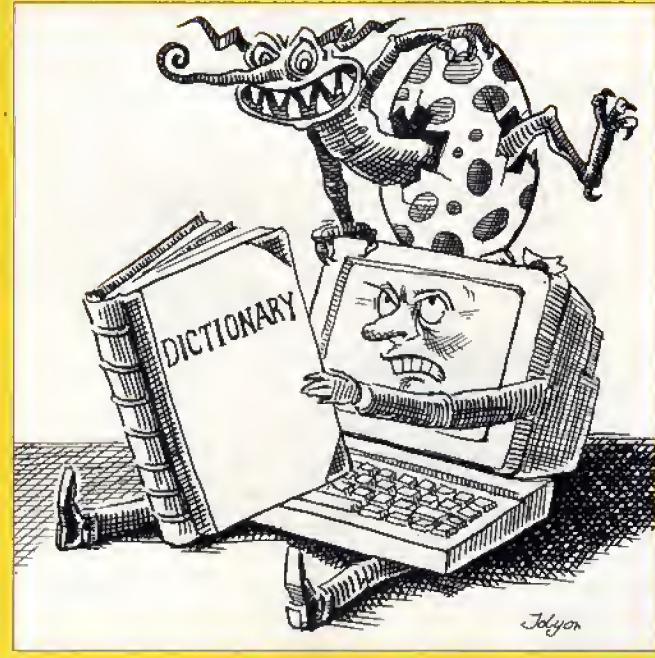
The guide continues with the categories of SPREADSHEETS, GRAPHICS and GAMES.

The month after that will cover WORD PROCESSORS, ACCOUNTS/PAYROLL, UTILITIES and DTP software, and the month after that it's back to this month's topics. Our intention is to keep publishing the three parts of the guide in rotation, updating it each month to include all new products. If you would like to see other sections of the guide, back issues of 8000 Plus are available at £1.75 each.

Meanwhile, if you are aware of any significant omissions or errors in the file as published, please let us know. We intend to maintain it as THE authoritative guide to PCW software.

LANGFORD

A page in the company of David Langford



Dictionary of Quotations

It is well known that everyone who is anyone uses a PCW — I checked by looking back through four years of 8000 Plus, and the theory was amply confirmed. Not only does everyone use the PCW, they all write about it and all make the same LocoSpell jokes. (Perhaps there should be a five-year moratorium on anecdotes with hysterical punchlines like, "And for my name, it suggested Landlord, ha ha ha ha!")

Browsing in other standard works of reference, I idly wondered what bygone pundits of literature and reality have said about their PCWs. Here is a selection from what I found....

Macbeth's fatal flaw, besides ambition, was that he never mastered BASIC commands — the software he sold kept coming back with

letters of complaint.

"We but teach

Bloody instructions, which being taught, return

To plague their inventor."

His old mate Banquo, meanwhile, complained that although he had no difficulty getting his PCW to do trifling things like addition, he got into trouble with serious stuff like his VAT return:

"And oftentimes, to win us to our harm,

The instruments of darkness tell us truths,

Win us with honest trifles, to betray 's

In deepest consequence."

James Joyce, after whom the machine was of course named, reviewed — but, in the end, decided not to use — LocoSpell:

"None of your cumpohlstery

English here!"

Apparently he wasn't too pleased by what the spelling checker made of his more moving passages like: "Finn, again! Take. Bussotlhee, mememormee! Till thousends-thee. Lps." (etc.).

Ambrose Bierce of *The Devil's Dictionary* fame had hard words for spelling checkers, too: "Dictionary, n. A malevolent literary device for cramping the growth of a language and making it hard and inelastic." Literary critics suspect that he never mastered the feature which lets you add your own words.

Incommunicado

St Paul lost his temper trying to set up baud rates for MAIL232 file transfer:

"Evil communications corrupt good manners."

That obscure 19th-century poet the Rev. Cornelius Whur liked a nice, clean, shiny screen on his "Joyce", and recorded this preference in verse:

**"What lasting joys the man attend
Who has a polish'd female friend!"**

But Andrew Marvell found the joys too long-lasting, especially when moving through a big document, and expostulated:

"Had we but world enough and time,

This coyness, lady, were no crime...."

The poet Longfellow had difficulty in upgrading from a low-tech quill pen, and kept hitting the wrong cursor keys:

**"I shot an arrow into the air,
It fell to earth, I know not
where." (Usually on the wrong
page of the file.)**

Percy Wyndham Lewis of the Vorticist arts movement tried, not very lyrically, to hymn his favourite software company:

**"I said (and I always say these
things with the same voice)**

"Say it with locomotives..."

Byron found the CP/M manual incomprehensible, and cursed its author something rotten:

**"Explaining metaphysics to the
nation —**

**I wish he would explain his
Explanation."**

Indeed, the prophet Jeremiah was even less enamoured of this manual, and suggested extreme measures:

**"And it shall be, when thou hast
made an end of reading this book,
that thou shalt bind a stone to it, and
cast it into the midst of Euphrates."**

Wittgenstein philosophically added,

**"Wovon man nich sprechen kann,
daruber muss man schweigen"** which translates roughly as, "I
couldn't understand the blasted
manual either."

But A.E. Housman, being a textual scholar as well as a poet, had no sympathy for people who can't follow the instructions:

"Three minutes' thought would suffice to find this out, but thought is irksome and three minutes is a long time."

Jonathan Swift was typically grumpy about the cheapness and ease of PCW word processing, and made some digs at it in one of the satirical bits of *Gulliver's Travels*: "Every one knew how laborious the usual method is of attaining to arts and sciences; whereas by [this] contrivance, the most ignorant person at a reasonable charge, and with a little bodily labour, may write books in philosophy, poetry, law, mathematics and theology, without the least assistance from genius or study." (I can't imagine how he left out best-selling novels.)

Hugo Gernsback, a much more awful SF writer, tried hard to predict the modern PCW in 1911 but got several details wrong:

"He attached a double leather head-band to his head. At each end of the band was attached a round metal disc that pressed closely on the temples. From each metal disc an insulated wire led to a small square box, the Menograph ... He then pressed a button and a low humming was heard; simultaneously two small bulbs began to glow with a soft green fluorescent light."

You could argue that with this gadget that "entirely superseded the pen and pencil", Gernsback came within shouting distance of describing glowing green screens and was the first SF writer to predict word processor discs, even if they're in a slightly unlikely place....

Thomas J. Watson of IBM was obviously just jealous of Amstrad: "I think there is a world market for about five computers."

Nothing new

Wordsworth found himself impressed by LocoScript's multiple alphabets but like everyone else became sarcastic about its speed: "Characters of the great Apocalypse, The types and symbols of Eternity."

And the forgotten James Grainger, in a 1759 epic poem which must surely have been dedicated to Amstrad (it's called *The Sugar-Cane*), lyrically pinpointed the common factor of all known software:

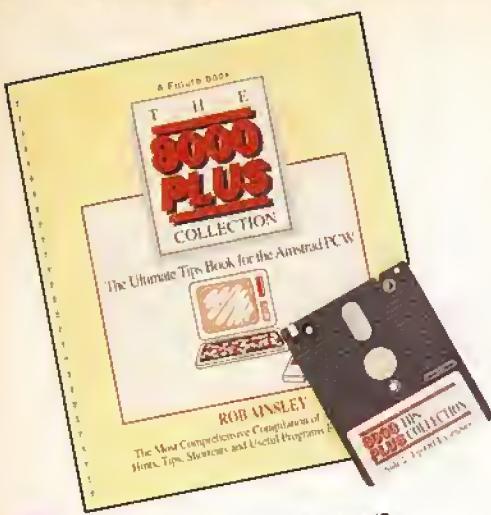
"By microscopic arts, small eggs appear,

**Dire fraught with reptile life;
alas, too soon**

**They burst their filmy goal, and
crawl abroad,**

Bugs of uncommon shape." ●

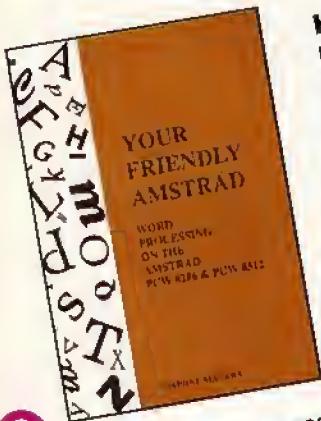
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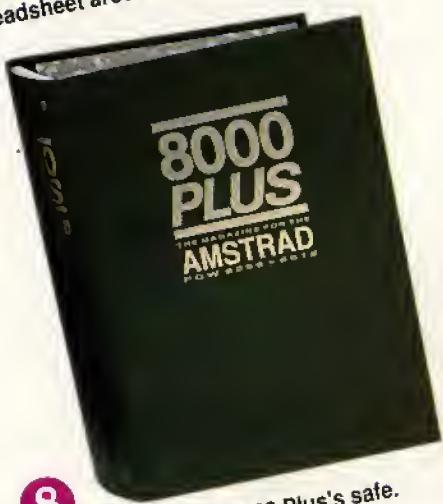


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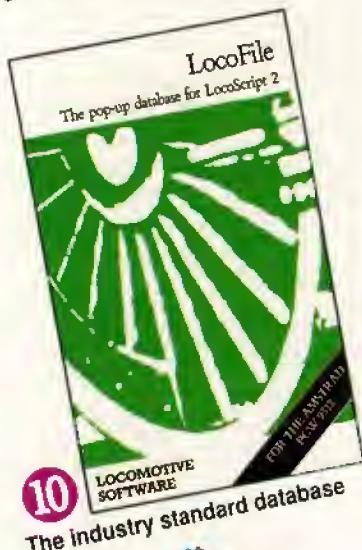
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POSTSCRIPT

If something in this month's issue of your favourite PCW magazine leaves you stewing with indignation or speechless with praise, don't just sit there - pass it on. These are the pages in which you can always be sure of a prominent platform and an eager audience. Don't just bottle it up; these are your pages and it's up to you to fill them. Send your letters to: Postscript, 8000 Plus, 30 Monmouth Street, Bath BA1 2XF.

Langford revisited...

I have enjoyed reading David Langford's "Dangerous Corners" ... Can we have a repeat sometime please?

Gerald Evans, Bath

... once more

You have finally done it, after all these years of peaceful enjoyment of the mag. This time I made the mistake of opening the August edition while I was still awake. There were no immediate problems until I arrived at David Langford's article on page 67. While reading it I got the distinct feeling that I was already familiar with its contents. By the time I had gotten to the end of the article I was convinced I had seen it before. To satisfy myself I went and dug up last month's issue (not an easy task since it was packed away in a box because I am just about to move to my new home) and looking through it, lo and behold, there was the same article letter for letter. (I told you I was awake).

Now I feel it is time to talk some business; this magazine costs me £1.75 for 92 pages making the cost per page £0.0190217. Since I have already bought Langford's article last month I don't want it again this month. In my opinion, because of this, you owe each reader the above figure.

I hope you will seriously consider the matter because I would hate to see 8000 Plus disappear (although my wife wouldn't mind too much, she has to find room for the present 47 issues and wouldn't know what to do with the next 47).

Evert Jan Westera, Colchester

8000 Plus: David Langford explains: "In keeping with the psychic slant of the August issue, I agreed to conduct a test

of readers' precognitive powers. It was a total success - thousands of you reported astral foreknowledge not only of the subject of my column but even of its exact wording! The group mind of the readership proved so potent that 'backwards causality' came into play: just as many psychics have the ability to modify their past prophecies and bring them into line with later events, so all copies of the July issue were telekinetically changed to include the identical Langford column. Who can doubt paranormal powers now?"

No refunds, I'm afraid: just two Langford columns this month!

Farewell to arms?

Tim Smith's bracelet does not worry me - but his review of my heraldry programme, "Armonial" does - in sadness rather than anger, I hasten to add - since the write-up does less than justice to my motives. I trust you will let me put the record straight for my fellow readers and supporters of 8000 Plus?

First off, an heir to a person who holds arms can bear the same arms as his father, suitably differenced; and any of his brothers can do likewise.

Tim criticises the manual as being rather flimsy. Yes, it is small; but it is only intended to get the reader into the system. An introduction beyond what is provided could well confuse. The rule that applies in one case does not necessarily apply in another case. The rules of heraldry are so complex that nothing short of a 200 page book would be adequate, and that is not practical.

"Armonial" caters for those who fancy trying to create a coat of arms, with little interest in taking up heraldry as a full-time hobby, and those who are already interested in heraldry, will have picked up a modicum of the guidelines and rules. With regard to a glossary, subsequent to your receipt of my disc, I rang up Tim to tell him that a glossary of heraldic terms would be included with every order, along with the library

of clip art and the manual. Certain firm rules of blazon are provided on the box in which the disc is housed.

I had considered providing a series of discs to cover a wide variety of heraldic clip art, and that is my intention. But please remember that many PCW'ers have limited funds; and quite a number of readers who show an interest in "Armonial" will still have to invest between £40.00 and £60.00 for Micro Design 2 as well as purchasing "Armonial". By staging the release of clip-art, I intend to make things as easy on the pocket as possible.

Peter Matravers, Exmouth

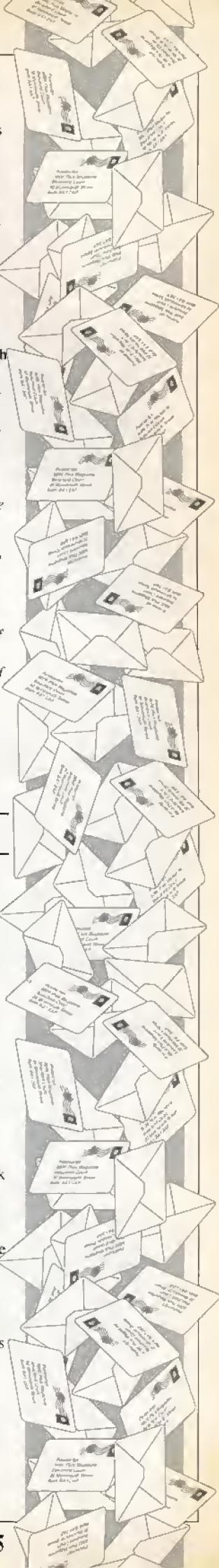
8000 Plus: I take your point but, unfortunately, any computer user is going to feel more kindly disposed towards forking out a not inconsiderable amount of money on a piece of software if they know that, at the end of the day, they are going to be able to learn how to use it - unlike many Mini Office Professional users a couple of years ago. With something as esoteric as DTP armorial bearings, a good manual is even more crucial than before. Apart from anything else, who is going to be interested in regularly creating coats of arms unless they are doing so in connection with a hobby or interest? And if that's the case, they are going to need not only the back-up of a reliable, well-written manual but a plentiful supply of versatile clip-art as well. Thanks for the letter, though.

Desert island risks

Have you ever considered giving, or asking readers for, advice on how to maintain a PCW in tip-top condition and, for those who don't have an Amstrad Service Agent round the corner, how to carry out simple repairs? I have the Amstrad Service Manual for my 8256, but it is written for a skilled computer mechanic rather than the average handyman.

I have found that, in a dusty climate, the most common fault is dust in the keyboard, which sometimes makes the machine insist on printing only in upper case. It usually responds to removing the bottom cover of the keyboard and blowing hard into every nook and cranny with a bicycle pump, old scent spray or anything similar. Ingress of dust can be considerably reduced by sticking strips of double-sided Sellotape along the four edges of the keyboard and using them to fix a sheet of tough, flexible, transparent plastic over the keys. It is quite easy to type through it. It won't last for ever, but replacement is easy and cheap.

In 3 years I have had no trouble with the VDU. The high-voltage components associated with the CRT seem to gather far less dust than those in my TV set, but I blow the inside out occasionally, to be on the safe side. I am concerned that the disc unit, like other



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sorts of PC and find that on the slowest PC LocoScript PC is at worst twice as fast as LocoScript 2 on a PCW (and so probably six times as fast as LocoScript 1, but I didn't test that!). I tested the various programs moving through a 12K document, a 32K document and a 96K document, reformatting every 1 line of text. On the oldest PC we have (in raw processing power

10-20% faster than a PCW) the task was carried out in a quarter to a half the time of the PCW. The worst case was the 96K document - which actually shows as much about the speed of the disc drives as of LocoScript! On the Amstrad PC1640, much more representative of today's inexpensive PCs the worst case improves to about four times the speed of LocoScript 2 on the PCW.

I also quibble with various other comments Steve made - clearly it's some time since he used his PCW! But as these are Steve's personal points of view, I can only stress our design philosophy. LocoScript has been incredibly successful as a word processor that's easy to pick up, but can be used to achieve quite complex

results. We felt it would be wrong to change the look and feel of the program when moving across to the PC, and so have kept many of the PCW's features and extended them where necessary (and of course will continue to extend them in future releases).

Steve would have preferred us to completely change some features (not have [+JU for underlining for example). We think he's wrong - it would be interesting to hear the views of your readers too.

And finally, it would have been helpful to have mentioned that the price of LocoScript PC is £125 plus VAT - and that we have an offer of £99 for PCW upgrades until the end of August.

Howard Fisher, Locomotive Software

8000 Plus: A good review is always written with the market for which the software caters firmly in mind. In his review which appeared in 8000 Plus, Steve assumes, quite reasonably, that our readers already know about the benefits of LocoScript word processing; however, anybody buying a PC, with prior experience of LocoScript on the PCW, would expect some level of improved performance. Steve felt that more decisive improvements could have been made. However, for the PC-using newcomer to LocoScript (for example,

those moving to the computer from a typing background) the package still comes across as a solid introduction to word processing. This accounts for his 'alternative' more positive review of the software in the August issue of our sister magazine, PCPlus.

Indignant of Edinburgh

Dr James Willis tells us in the July issue that LocoScript is a program suit-

able for 76-year-old grandmothers. If these mature women had less wisdom and experience of life they might be tempted to give the G.P. a taste of his own medicine by patronising him, making assumptions based on his age and sex, or using him to personify computer illiteracy.

Helen Gretton, Edinburgh

8000 Plus: Thanks for your letter.

Helen, I think that the point Dr Willis was trying to make is that someone with absolutely no former computing experience can easily make friends with a PCW when it's coupled with LocoScript. And it seems fairly reasonable to assume that the generation to which he alludes is the least computer literate of all. It's also a universally acknowledged truth that computing - whatever form it takes - is still (though not as much as it once was) a predominantly male preserve. The emphasis was very definitely on the user-friendliness of LocoScript, not the 'ineptitude' of its user.

A mere pawn

We have a PCW 9512 and for some time, well, in fact for nearly a year I have been looking for a computer game called The Pawn marketed by Rainbird Software. I have searched the yellow pages for shops who might sell the game, only to be told that they do not stock it and the best thing to try would be mail order. So I phoned the number advertised in your magazine to be told by them that the game was discontinued and the only way to purchase the game would be to find a shop with some old stock. Could you direct me to somewhere I could buy the game. I am writing to you as a last resort.

Richard Whitley, Poole

8000 Plus: I'm afraid we can't help you - unless somebody out there can? All suggestions are welcome.

Out with the new

Last year I purchased a PCW 8512 and was disappointed to find it included LocoScript 1 and not LocoScript 2. Representations to Amstrad that they should replace LocoScript 1 with LocoScript 2 met with no helpful response. I still maintain that they sold an "out of date" software package!

To date, I have bought no other software because I am not sure what is best. For my needs the Mini Office seems appropriate but I am not sure again whether to buy Mini Office Professional (now advertised as the "original and bug free version") or Mini Office Professional Plus. Have you any comparative data?

I note that on page 75 of July 8000 Plus you refer only to MOP Plus? Does this mean you regard MOP as "out of date"?

A J Bradling, Nottingham

8000 Plus: Locomotive Software maintain that there are, as yet, no plans afoot to begin shipping LocoScript 2 with the PCW.

No, we certainly do not consider Mini Office Professional to be 'out of date'. In fact it is the only version of the package currently available and that's because Mini Office Professional Plus was withdrawn because of a number of not terribly successful 'enhancements' that were made to it - notably the thesaurus and the spell checker. Mini Office Professional costs £39.95.

Bridging the gap

I have found in the past that I have been able to obtain everything that I have wanted to use with my PCW8512 through your magazine, from word processing to accountancy, paper etc.

At the moment I am stumped, as I am looking for a program to use in my PCW to score Bridge Pairs. There has been an article in the Bridge Union bulletin stating there is one available for the Amstrad and I wonder if you in your library have the name and address, also the price, if possible, of a supplier.

Many thanks for the help your magazine has been over the past years and I do not think there has been a month that I have not learnt something from it.

Look forward to hearing from you and I would like to thank you in anticipation.

Thomas Beven, Norfolk

8000 Plus: The company to talk to would be CP Software (0993 823463) who really do hold the monopoly as far as Bridge-playing software for the PCW is concerned. They created Bridge Player Galactica 2150 (£19.95) and Classic Games (Clock Chess, Backgammon, Draughts and Bridge Player, again for £19.95).

Designer blues

About three years ago now I purchased a program called Grafpad II from British Micro via another company which was, at that time, situated in Watford. This is a graphics package which I have found to be utterly invaluable in my design work.

Unfortunately, the hardware that I bought has now ceased to function and I have been told that the original manufacturer of the package has, since its purchase, gone out of business.

I am therefore writing to you, as a last resort, to find out if any of your readers have one of these Grafpad II units that they no longer want that I could buy from them? Failing this, is there anybody who undertakes repairs on such items?

D. C Hearn, Braintree, Essex

8000 Plus: I think this is before any of our times. Can anybody else help?

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Competition

Answer our five birthday questions below to win a copy of **Flipper**, the utility which lets you and your PCW get on with two jobs at once!



Do you ever get fed up of repeatedly saving the work you are doing on your spreadsheet or database, removing the disc and booting up the machine again to get into a LocoScript document just so that you can check that the figures you were entering in the first place are correct? Then, of course, you have to reboot the machine once more with the original program so that you can carry on where you left off. It's probably fair comment to say that it's not a process guaranteed to maximise concentration.

On the other hand, think how useful it would be to be able to split your machine into two halves so that you could, effectively, have two programs running on it at the same time. All you would have to do is to flip between them would be to press three keys down simultaneously.

Readers of last month's issue will know that this is not an idle dream and that a program called **Flipper** will allow you to do just that as easily and painlessly as we've just described. And that's not all it can do, either. **Flipper** is the only utility which allows you to split your PCW between CP/M and LocoScript environments, two CP/M environments or two LocoScript environments. It really is a multi-talented little beast.

The good news is that Andy Wilton, the man behind Bath-based Software Imperative, has kindly donated three **Flipper** programs for our special fourth birthday competition prizes. If you fancy your chances, simply write the answers to the following questions on the back of a postcard and send it to: **Flipper Competition, 8000 Plus, 30 Monmouth Street, Bath BA1 2BW**. Hurry though; the competition closing date is Wednesday, the 26th September.

1	When was the PCW 8000 machine first launched?		
	a) April '85	b) November '85	c) January '86
2	When did the PCW 9512 make its first appearance in the UK?		
	a) April '87	b) September '87	c) December '87
3	How old is AMSTRAD?		
	a) 22 years	b) 20 years	c) 18 years
4	What famous brand of chocolate regularly graced past covers of 8000 Plus?		
	a) Fruit and Nut	b) Marathon	c) Crunchie
5	What does AMSTRAD stand for?		

JULY WINNERS

Our congratulations go to Mrs A Rowlands from Inkberrow, Worcestershire, R Luchesi from Ayrshire and finally Jackie Nicholson from Cumbria who correctly answered our July competition questions to each win a copy of **Bibliotec**. The answers were 1) 1976 2) the Talmud 3) John Steinbeck 4) 33 days and 5) Greek. Thanks to all those of you who wrote in.

NEXT MONTH!

Stock Market II

David Frost will be looking at the new, improved version of Meridian Software's highly successful investment program, **Stockmarket**, and working out where the changes have been made. With well over 50 new features to take into consideration, it may well take some time. So, if you need any help planning your investments and keeping a close and careful watch over their progress, don't miss next month's review of an upgrade to an old favourite.

Producing your own fanzine

Would you like to see your work in print? Regular **8000 Plus** contributor Nick Vandome will be showing you how to deal with all aspects of producing a successful fanzine for your local club or organisation. What, for example, are the delights and perils of being your own editor? What type of material should you include? How do you go about securing contributions and how do you cleverly use the illustrations that you have at your disposal? For the definitive guide to fanzine production, tune into next month's issue.

What's the score?

Composit Software's new release, **MusicPad**, comes under the surgeon's knife next month. Although it incorporates many of the key features which made its predecessor, **The Composer's Pen**, so successful, this new program has been put together with the requirements very much in mind of those users who found **The Pen** a little too complex – and expensive – for their needs. Read next month's review of the new extension to Composit Software's range of music printing programs to find out more.

What the manual doesn't tell you

Believe us, in the case of **Protext**, that's quite a lot. Or, at least, if it's there, it will take you ten years to locate it. If you find yourself struggling to get the most out of that alternative PCW word processing package, read our no-nonsense, fully-illustrated, step by step guide to the sacred mysteries of **Protext** in our next issue.

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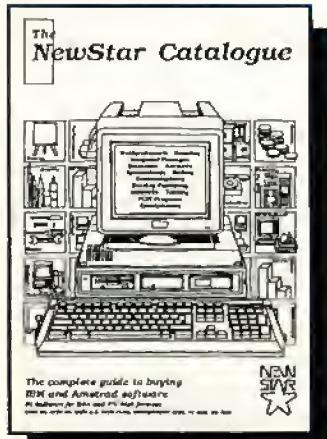
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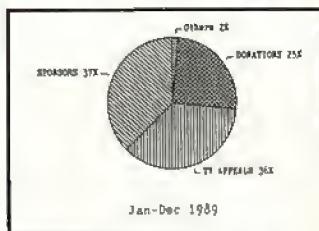
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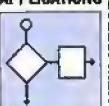
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